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October 24, 2008 Volume 30 Number 43 www.processor.com



# Data Center Power Players

## **A Look At Emerging Companies That Are Innovating The Power Equipment Arena**

by Carmi Levy

NOT SO LONG AGO, powerrelated issues were not exactly at the top of data center managers' priority lists. As long as everything worked when they plugged it in, they were free to focus on other matters. Now, as spiralling energy prices and skyrocketing densities take over the data center, power management is suddenly their hottest issue. These days, there are some innovative players in the data center power management space. If you're looking to get a tighter grip on where your energy goes and how effectively you manage your data center environment, keep your eye on these companies.



#### **Cyber Switching**

You can't manage what you can't see. Unfortunately for data center managers

using conventional PDUs (power distribution units), the first sign of trouble comes

when they see their monthly utility bills. Gisa Abiog, director of sales and marketing for Cyber Switching (408/436-9830; www.cyberswitching.com), says managers and administrators need more information—in real time—to get ahead of the curve.

"We were the first company to get very granular with the information that these managers need," says Abiog. "We consider ourselves an energy management company, and we work closely with our customers to help them distribute their power in the most efficient manner possible."

This granularity is made possible by PDUs

with market-leading remote management capabilities. Abiog says Cyber Switching was the first provider to support remote reboots, as well as outlet-by-outlet power cycle capability.

"Built into the PDU itself, you can see remotely how much you're drawing," says Abiog. "Our virtual circuit breaker, unique to the market, automatically shuts off non-mission-critical devices in the event of a power surge."

Cyber Switching's PDUs allow managers to define mission-critical and nonmission-critical outlets. Devices deemed nonmission-critical can be automatically shut down during off-peak times to reduce consumption without compromising organizational capability.

"Whether it's a corporate or data center policy, our

equipment allows you to elegantly shut

Go to Page 10

## Fixing Network Security

## **Tools & Technologies To Help You Ward Off The Latest Security Threats**

by John Brandon

NETWORK SECURITY in the SME is not broken, but there are cracks in the vase: Remote workers visit your HQ for the day and unwittingly install malware from their laptop, or by exploiting one minor security patch for a Wi-Fi router, a hacker manages to break into a server and steal company documents. Often, by the sheer complexity of IT and the growing trends in consolidation and virtualization, storage and server utilization, and new efforts in cloud-based computing, it's almost impossible to stay ahead of the curve. And when the curve is constantly devising new tactics, IT managers pay the price.

"One primary problem that SMEs seem to be dealing with is the introduction of malware through trusted channels," says James Quin, an analyst at Info-Tech. "Whether it be the introduction of malware via a trusted partner or by a traveling laptop on its return to the network, the issue in both circumstances is that because of the way the user connects to the network, he or she bypasses many of the in-place protection mechanisms that these organizations have."

"SMEs generally have a minimal IT staff—they generally outsource their Web presence to a third-party consultant, who dutifully crafts a Web page for them, collects their money, and then goes on their way," says Paul Ferguson, an advanced threats researcher at Trend Micro (www .trendmicro.com). "This is where the problem lies with unattended Web platforms, which do not receive the proper, ongoing

care and feeding they deserve and require. If these Web platforms do not get constant attention when security vulnerabilities are found (e.g. in the operating system and *Go to Page 10* 

## Who, What, Where & How

Websense (www.websense.com) lists four important variables in fighting security in an SME:

- Who is allowed to access certain material or go to certain sites?
- What information needs to be protected?
- Where should users and sensitive information be allowed to go?
- How should critical information be communicated?

## In This **ISSUE**

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We highlight some of the best smaller manufacturers worthy of your data center's attention.

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#### **TECH & TRENDS**

#### Fixing Network Security | 1

In the battle for network security, a first step might be to admit that the war will never really be won. However, NAC appliances, security systems that analyze traffic, end-user education about recent threats, and security logs can all help an SME win the next battle.

#### Virtualizing Messaging Systems | 22

Virtualization—everyone is doing it, right? But in a March 2008 study conducted by Osterman Research, only 22% of the respondents listed messaging-related virtualization as a high or very high priority.

#### Testing Your Disaster Recovery Plan | 23

Many managers fear disaster recovery, aka DR, testing is expensive and disrupts daily operations. The onus is on IT staff to convince management that DR testing is more a benefit than a burden.

#### How To Handle An IT Employee's Departure | 24

Given all the access and control IT employees can have to a company's most sensitive information, no company can afford to be casual about IT staff departures.

#### **NEWS**

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■ Microsoft issued a statement saying the company still has "no interest in acquiring Yahoo!."page 4
■ Google posted a net income of \$4.92 per share, exceeding analyst expectationspage 4

- Semiconductor sales will grow this year by 3.5%, not the previously expected 4%, says iSuppli......page 9
   CERN has launched the Worldwide LHC Computing
- CERN has launched the Worldwide LHC Computing Grid, a global computer network designed to link together data centers in 33 countries. .....page 9
- Some employers are willfully forging documents and "shell" companies are providing addresses of fake locations to obtain H-1B visas, according to a recent report. .....page 9
- By 2012, about 73% of workers will be mobile, according to Forrester Research......page 11

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#### STORAGE OCTOBER 24, 2008



The Dynamic Solutions DSI9000 v.2 family of virtual tape libraries can support up to 64,000 virtual tape volumes in a single node.

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☐ Monthly

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**Backup & Recovery At Disk Drive Speed** 

## Dynamic Solutions DSI9000 v.2 VTL Family

Having a disaster recovery plan is a must for any company. Data is precious, and it can't always be replaced if lost. Dynamic Solutions offers a cost-effective option for enterprises with version 2 of the DSI9000 family of VTLs (virtual tape libraries).

The DSI9000 v.2 VTLs are designed to reduce the need for tape for backups and to speed up the backup and recovery process. The family of VTLs supports end-to-end high-speed connections and multistreaming, multisession backups and connects to many different backup servers and mainframes.

These powerful features create a secure, streamlined backup process.

Unisys MCP and OS2200 environments are supported, and DSI has its own host-based software for tape and library management for MCP. The DSI9000s support up to 64,000 virtual tape volumes in a single node and use ANSI Fibre Channel (4Gb) to attach to mainframes and open systems. They can connect to Unisys MCPvm, MCP, and OS2200 platforms as well as OpenVMS, Unix, Linux, and Wintel open systems. They also support high-availability pairs with failover capability.

Other features of the DSI9000 v.2 VTLs include data replication at a single node or across an enterprise and certification with leading backup applications and tape libraries. Plus, the VTLs can be customized for individual applications.

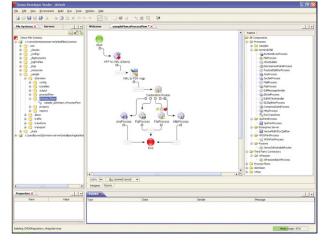
The DSI9000 v.2 VTL family is the third generation of virtual tape solutions by DSI and continues the company's goal of offering innovative and competitive storage solutions for data backup and recovery.

#### NETWORKING & VPN OCTOBER 24, 2008

□ Quarterly

☐ Annually

□ No Involvement



Xenos Enterprise Server helps enterprises centralize and streamline information data flows.

\$70,000 (905) 709-1020

www.xenos.com

#### Centralized Management Of Structured & Unstructured Data

## Xenos Enterprise Server

Information flows in and out of businesses every day in high volumes, yet most of it is in incompatible formats. This inconsistency in the way information is received and gathered can inhibit crucial business endeavors such as mergers, acquisitions, and the creation of new information supply chains. Xenos Enterprise Server is an application designed to alleviate this problem by offering a scalable architecture framework so companies can better extract, transform, and repurpose both structured and unstructured data.

Xenos Enterprise Server is a server-based infrastructure solution designed to give complete organizational control over data and document transformation from a central location. The software is designed to be flexible and easily integrates into a company's existing information supply chains. This gives companies better efficiency, enhances business

processes, and reduces compliance management risks. Migrating legacy documents and image archives, facilitated by Xenos Enterprise Server, can help reduce license, maintenance, and training and support costs.

The Xenos ES is built on J2EE architecture, which is fault-tolerant and server-based, with the ability to quickly process millions of transactions. Other features of the architecture include job scheduling, load balancing, clustering, monitoring, failover, notification, and error handling. The software is highly scalable and component-based, supporting the extraction, transformation, and repurposing of data in the enterprise, effectively granting companies access to the business-critical content necessary for Content-Enabled Vertical Applications.



## STORAGE OCTOBER 24, 2008



Open-E Data Storage Server is a highly flexible storage management software solution that offers unified file and block (NAS or SAN) support

(781) 481-9399

www.open-e.com

#### NAS & iSCSI Functionality In A Single Operating System

## Open-E Data Storage Server

Open-E DSS (Data Storage Server) is a unified file and block storage management solution that offers both NAS and iSCSI (target and initiator) functionality in a single operating system. Capabilities include remote mirroring for disaster recovery; automatic failover for high-availability clusters; WORM (write once read many) support for digital archiving; and NDMP (Network Data Management Protocol) support for universal backup.

Open-E DSS offers enterprise-class functionality and reliability, enhanced manageability, and increased productivity for applications such as file sharing, storage consolidation, backup and recovery, virtualization, and disaster recovery.

Open-E DSS is built on Open-E's NAS/SAN software technology, which is noted for its performance, superior security, robust operation, and ease of use.

With Open-E DSS, users can cost-effectively and quickly add storage to an existing network, consolidate storage and backups for multiple servers, centralize storage management with optimal performance and data protection, and improve data availability and efficiency. Additionally, Open-E DSS is a full, independent OS and does not require the installation of Linux, Windows, or any other OS and can be up and running in minutes.

Enhanced features include automatic failover, enabling the Open-E DSS server to switch from a primary storage server to a secondary one if the primary server fails or to simplify scheduled maintenance. Open-E DSS provides all these features at a fraction of the cost of alternatives.



CLIENTS OCTOBER 17, 2008



The Lenovo ThinkCentre A62 is a cost-effective business desktop PC complete with various management and productivity utilities.

Starts at \$399

(866) 968-4465

www.lenovo.com



Attractively Priced, Environmentally Friendly Desktop

#### Lenovo ThinkCentre A62

Businesses today need versatile computing gear that they can rely on for strong and steady performance. They also need equipment that's cost-effective but environmentally friendly. Lenovo's new ThinkCentre A62 desktop tower PC covers all this and more.

With 15 months of rated stability via the inclusion of AMD's business-class Athlon 2650e 15-watt processor and increased efficiency by consuming 40% less electricity than the ThinkCentre A62's predecessor, the A62 gives businesses a computing base they can count on. The Think-Centre A62 has also been GreenGuard-, EPEAT

Gold-, and Energy Star 4.0-certified and offers the world's only green fingerprint keyboard, which is constructed of 35% post-consumer recycled material, as an optional purchase.

Productivity-wise, Lenovo offers Dash 1.1, a remote-managing utility that lets users boot, audit, and update the A62, as an optional purchase, while Express Repair provides versatility and convenience by fixing various system-corruption problems, many in less than three minutes and without adversely affecting the data stored on the A62, the OS, or software that's running. Lenovo's own built-in ThinkVantage Technologies include

various management and productivity utilities, such as a software image builder, one-button recovery, secure data deletion, and the ability to switch between wired and wireless connections and quickly deploy critical updates. Combined, the ThinkVantage Technologies take care of performance-related issues so IT staffs can concentrate on more pressing organizational issues.

The A62 ships with a built-in GbE port, 1GB of PC2-5300 RAM, ATI Radeon TM 3100 graphics, 160GB of 7,200rpm SATA II storage, and a DVD-ROM drive. Windows Vista Home Premium is included with other editions offered as options.

#### MESSAGING & TELEPHONY

**OCTOBER 10, 2008** 

**OCTOBER 10, 2008** 



The Jazinga IP PBX appliance is designed for the average person to be able to set up a complete PBX system in a small business setting.

\$1,095

**SECURITY** 

(800) 671-0677

www.jazinga.com

**DIY Telephony** 

## Jazinga IP PBX Appliance

Employees sometimes take the phone system for granted, but setting up a telephone system for a business usually takes quite a bit of work and planning. Those who configure the system need to be experienced and savvy.

The Jazinga IP PBX appliance is designed to enable the average person to set up a complete PBX system in a small business setting (the system is intended for businesses with up to 20 employees). Jazinga features high-end corporate phone system capabilities in addition to wireless networking, fax, and email.

Phones—including IP or traditional PSTN (Public Switched Telephone Network) models—can be plugged into the network, where Jazinga automatically detects and configures them. To complete

configuration, users are guided through an on-screen wizard. Setup is designed to take only about 10 minutes. After configuration and setup are complete, you can easily add users and conduct administrative tasks on the system.

Features of Jazinga include auto-attendant, voicemail, conferencing, call forwarding, and on-hold music. Jazinga ensures call quality by implementing QoS and prioritizing voice calls over data traffic.

Jazinga folds all the above options into a package that is designed to cost significantly less than other solutions with similar features. Most importantly, the Jazinga system negates the cost and time usually required for IT professionals to set up a telephone system.

Остовек 17, 2008



Comodo SecureEmail uses PKI-based technologies to encrypt and digitally sign outgoing emails, preventing tampering during transmission.

(888) 266-6361 www.comodo.com

**Email Security Software Provides "Whole Journey" Encryption** 

## Comodo SecureEmail

Unsecured email messages can potentially be intercepted, read, or edited by anyone along the way. Most of the companies handling email messages are trustworthy, but if one computer on an email's route is compromised, anyone could read the private information within.

To those concerned about email security, Comodo offers its SecureEmail. Comodo Secure-Email employs PKI-based technologies that encrypt and digitally sign outgoing emails, preventing tampering during transmission.

Many enterprises encrypt messages as they leave the corporate perimeter, leaving internal mail vulnerable to malware. Comodo SecureEmail provides whole-journey encryption from sender's mail client to recipient's mail client—the only way to completely secure the exchange. Comodo Secure-Email helps companies comply with HIPAA,

Sarbox, GLBA, PCI, and the UK Data Protection Act.

SecureEmail integrates with Microsoft Outlook, Mozilla Thunderbird, and other S/MIME-capable email clients. It includes a wizard to download a free Comodo email certificate, or it may be used with third-party SSL certificates. Comodo SecureEmail automatically generates a unique single-use session certificate to encrypt outgoing emails to recipients whenever an email certificate is not present on the system.

Comodo offers this solution free to encourage the practice of signing and encrypting email communications to protect users from vulnerable email exchanges.

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## Data Protection Solutions By Arco EzRAID DD4 FlexMount

As many computer users and companies move from IDE to SATA hard drives, the need arises for a RAID 1 controller in the same small form factor and with the same ease of use as IDE versions. Data Protection Solutions by Arco's solution to the demand is the EzRAID DD4 FlexMount.

The FlexMount has a high-impact, black plastic shell to protect it from other electrical components in the computer case. It can be mounted virtually anywhere inside the case where users can fit the tiny 3.5- x 2.2-inch device. It connects via included SATA cables and doesn't occupy a PCI slot on a computer or need PCI bus power or a drive bay.

Once installed, the FlexMount sends all writes to both drives simultaneously, creating and maintaining an up-to-the-minute mirror of the

computer's other hard drive. One useful feature of the FlexMount is that if one of the drives fails, users will receive an audible alert, but the other drive will take over, preventing the computer from shutting down.

Included with the FlexMount is a PCI slot bracket that has a serial port, status lights, and an alarm reset button. Though the bracket occupies an opening in the case, it does not use a PCI slot. The FlexMount is compatible with all SATA drives and partitioning schemes and doesn't require drivers or IRQs. The included software utility can be installed on Windows or Linux machines. Users can also run the software off the CD-ROM, allowing use of the FlexMount with most operating systems, including Windows, DOS, Linux, OS/2, Unix, Solaris, and NetWare.



News

#### Gartner Lowers IT Spending Outlook For 2009

Citing economic crises both in the United States and abroad, research firm Gartner lowered its forecast of 2009 IT spending from 5.8% to 2.3%. In particular, the firm believes that Western Europe will see negative growth, predicting a 0.8%

decline in IT spending rather than the 2.8% growth it had originally predicted. North America's spending will rise 0.5%, down

sharply from the original forecast of 5.3%. As for the Asia Pacific region, the firm expects an 8.3% growth in spending, down from the 11% growth first forecast.

#### Microsoft Has "No Interest" In Acquiring Yahoo!

Microsoft issued a statement saying the company has "no interest in acquiring Yahoo!." The statement came after Microsoft CEO Steve Ballmer was quoted as saying the acquisition would still make financial sense for both companies. Since Jan. 31, Microsoft has pursued Yahoo! by offering \$44.6 billion for the company but then tabled negotiations May 3 when Yahoo! didn't accept Microsoft's proposal. Although Microsoft offered \$33 a share for Yahoo!, Yahoo! believes it's worth more per share. After halting discussions with Microsoft, Yahoo! announced a partnership with Google to boost revenue.

#### Nvidia & ATI Off The Antitrust Hook

GPU makers Nvidia and ATI (now a division of AMD) are out of the woods regarding a federal investigation into possible antitrust violations. Both firms received subpoenas from the U.S. Department of Justice in late 2006 for allegedly engaging in anticompetitive practices, including fixing and manipulating prices of the GPUs and graphics cards they design and manufacture. Both companies reported that no specific charges were ever made and that the case is now closed. The Department of Justice also told AMD and Nvidia that no further action would be taken.

#### Yahoo!, Google **Meet With Justice Department**

Google and Yahoo! are reportedly meeting with the U.S. Justice Department to look into ways of avoiding potential antitrust problems that their impending advertising



agreement might cause. Both companies rely heavily on advertising revenue to stay in the black, and the nonexclusive 10-year partnership, in which Yahoo! will display Googlesupplied advertisements alongside its search results, could mean up to \$800 million for Yahoo! in its first year. The deal was set to go through earlier this month but has been delayed to give the Justice Department time to finish its investigation.

#### Microsoft To Keep Windows 7 Codename

Microsoft will keep the codename Windows 7 when the operating system officially ships, says Mike Nash, Microsoft corporate vice president of product management. "The decision to use the name Windows 7 is about simplicity," Nash wrote in an Oct. 13 post on the Windows Vista Blog, adding that "while I know there have been a few cases at Microsoft when the codename of a product was used for the final release, I am pretty sure that this is a first for Windows." Microsoft plans to share a prebeta, developer-only release of Windows 7 at the Professional Developers Conference late this month and again at WinHEC early next month. Reports put Windows 7's release at late 2009 or early 2010.

#### PC Shipments Rose 15% In Third Quarter

Worldwide PC shipments rose 15% in the third quarter, according to research firm Gartner. HP shipped 14.8 million units for a market share of 18.4%. Dell was in second place with a share of 13.6%, while Acer's piece of the market jumped to 12.5%. Acer's market share gains were driven by its sales of mini-notebooks, a segment of the market where HP and Dell do not have a strong presence. Mini-notebooks, also known as netbooks, are PCs with screen sizes of 5 to 10 inches and typically cost less

#### FTC Silences Spam Ring

than \$500.

The Federal Trade Commission recently won a preliminary victory against one of the largest spam gangs on the Internet. As a result, the group's assets will be frozen, and the spam network will be ordered to shut down. The group, which was best known as HerbalKing, used a botnet to send billions of unsolicited messages to Internet users during the past 20 months. The commission asked the court to freeze HerbalKing's finances, arguing its members were using unfair and deceptive advertising practices and violating the CAN-SPAM Act of 2003. The government also is pursuing criminal charges against the group.

#### Zombie PCs Increase

The number of compromised computers functioning as botnet PCs delivering spam

This information provides a quick glimpse of current and historical stock prices and trends for 14 major companies in the technology market.

Company	Symbol	Year Ago	Oct. 10 \$	Oct. 17 \$	% change from previous week
AMD	AMD	\$14.11	\$3.81	\$4.21	<b>▲</b> 10.5%
Computer Associates	CA	\$26.10	\$15.84	\$15.90	▲ 0.38%
Cisco Systems	CSCO	\$32.46	\$17.23	\$17.91	▲ 3.95%
Dell	DELL	\$28.62	\$13.27	\$13.04	<b>▼</b> 1.73%
Google	GOOG	\$633.48	\$332	\$372.54	<b>▲</b> 12.21%
HP	HPQ	\$52.54	\$37	\$39.71	<b>▲</b> 7.32%
IBM	IBM	\$115.78	\$87.75	\$90.78	<b>▲</b> 3.45%
Intel	INTC	\$26.72	\$15.19	\$15.50	<b>▲</b> 2.04%
McAfee	MFE	\$38.65	\$28.44	\$30	▲ 5.49%
Microsoft	MSFT	\$31.08	\$21.50	\$23.93	<b>▲</b> 11.3%
Oracle	ORCL	\$21.49	\$16.68	\$17.02	<b>▲</b> 2.04%
Red Hat Software	RHT	\$20.86	\$12.80	\$12.97	<b>▲</b> 1.33%
Sun Microsystems	JAVA	\$5.99	\$4.80	\$5.58	<b>▲</b> 16.25%
Symantec	SYMC	\$20.58	\$13.67	\$15.28	<b>▲</b> 11.78%

NOTE: This information is meant for reference only and should not be used as a basis for buy/sell decisions

increased dramatically from August to September, according to a report from Symantec. The Symantec report found, on average, a 101% increase of botnet spam in September. In addition to the increase in botnet PCs, Symantec notes that there was also an increase of email messages carrying malware payloads rather than just links to malicious code. The study indicated that spam now accounts for 78% of all email, and the greatest percentage of spam attempts to redirect you to another Web site. Spam of a financial nature was the second most common classification.

#### 2008 Brings Record Number Of Data Breaches

A recent study from the Identity Theft Resource Center found that there have been 524 large security breaches so far this year. The report indicates that the identities of up to 30 million consumers may have been exposed. Even at this point in the year, the number of consumers possibly affected by the data breaches is greater than all of 2007. The Identity Theft Resource Center attributes the rise to the increased disclosure required by state laws. The center says that the actual number of impacted consumers may be slightly less than 30 million, as some people may appear on the list more than once. Also, not all consumers whose identities have been exposed are at risk, as the breached organization may provide a credit monitoring service.

#### Intellectual Property Bill Signed Into Law

President Bush signed an intellectual property enforcement bill into law. The new law, called



the PRO-IP (Prioritizing Resources and Organization for Intellectual Property) Act, establishes within the executive branch a position of intellectual property enforcement coordinator, who will be appointed by the president. The law also heightens the penalties for intellectual property infringement and provides the Department of Justice with greater resources for handling piracy issues.

#### Intel Buys NetEffect

Intel announced its \$8 million acquisition of NetEffect, a manufacturer of Ethernet products and server computer technologies. Intel will gain NetEffect's products, including iWarp and NetEffect's family of 1Gb and 10Gb Ethernet adapters for servers and blade configurations. NetEffect, an Austin, Texas,-based company, had 30 employees; most are engineers and will remain working in Austin.

#### Google Exceeds Financial Expectations

While other technology companies are struggling through these tough economic times, Google continues to thrive. The Web giant posted a net income of \$4.92 per share, which exceeded the \$4.75 per share analysts from Thomson Reuters expected. Overall, Google reported \$4.04 billion in revenues. Most of Google's revenue is made through the advertising posted in conjunction with search results. When people click those ads, Google gets paid by the advertiser. Google reported an 18% increase in the number of ads clicked compared to last year.

#### **Upcoming IT** Events

Are you looking to learn more about data center or IT topics? Network with some of your peers? Consider joining a group of data center professionals. If you don't see a meeting listed in your area, visit www.afcom.com, www.aitp.org, or www.issa.org to find a chapter near you.

#### - OCTOBER -

Technology + Learning Conference October 28-30 Seattle, Wash.

#### www.nsba.org/t+l Seattle SecureWorld Expo

October 29-30 Seattle, Wash. www.secureworldexpo.com

#### - NOVEMBER -

#### ITEC Washington, D.C.

November 4-5 Washington, D.C. www.goitec.com

#### . . . . .

**ISSA Central Plains** November 7, 11:30 a.m. River City Brewery 150 N. Mosley Wichita, Kan. www.issa-cp.org

#### . . . . Greater Kansas City AFCOM

November 11 Cerner Corp. 3200 N. Rockcreek Parkway Kansas City, Mo. www.greaterkc-afcom.com

AITP Central Idaho November 12, 11:45 a.m. The Owyhee Plaza 1109 Main St. Boise, Idaho

www.boisestate.edu/dpma/dpmaci /meetings.html

#### Dallas SecureWorld Expo November 12-13

Dallas, Texas www.secureworldexpo.com

#### . . . . . ITEC Atlanta

November 12-13 Atlanta, Ga. www.goitec.com

#### AFCOM St. Louis Gateway

November 13 Schneider Electric Technology Center 807 Corporate Centre Drive O'Fallon, Mo.

www.afcom.com/afcomnew/stlouis.html

#### . . . . . **AITP Nashville**

November 13, 5:30 p.m. Holiday Inn-Brentwood 760 Old Hickory Road Brentwood, Tenn. www.aitpnashville.org

#### AITP Washington, D.C.

November 13, 6:30 p.m. Alfio's Restaurant 4515 Willard Ave Chevy Chase, Md. aitpwashdc.ning.com

#### . . . . . **Program Management**

November 18-19 Washington, D.C. events.fcw.com

#### ISSA Baltimore November 19, 4:30 p.m.

Sparta Inc. 7110 Samuel Morse Drive, Suite 200 Columbia, Md. www.issa-balt.org

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## PRODUCTS AT WORK

# **Improving Service**

## **Xangati Helps PrimeLink Protect Its Customers From Web Threats & Hassles**

by Robyn Weisman

**PLATTSBURGH, N.Y.,**-based PrimeLink is a fairly small but growing ISP with about 3,000 subscribers. It faces several problems common to ISPs everywhere: tracking down spam, preventing its subscriber email from being blacklisted, and determining the cause of customer complaints, among other things.

But finding a solution that could help address these problems, let alone provide visibility into its network and monitor its customer traffic, was not an easy task. Frank Koniszewski, IP network engineer at PrimeLink (www.primelink1.com), says that only one solution met all of Prime-Link's criteria: Xangati's RPI (Rapid Problem Identification) System (www.xangati.com).

"I've got 14 years in this industry, and although I haven't read every trade rag or product announcement that has come out, I think Xangati holds a unique position in its ability not just to monitor or give us more indepth views into our network traffic but [to] break it down by application layer," Koniszewski says.

#### Motivated By Spam

According to Koniszewski, spam was a primary pain point for PrimeLink and the primary motivator for seeking out a solution. Other larger Internet providers would block all inbound email from PrimeLink for anywhere from three to five days if they saw what they perceived as an inordinate amount of spam.

"We had to find a way of monitoring which of our customers were sending outbound mail," says Koniszewski. "Now there were times where somebody was probably running a home business [and would] buy a mail list and blanket that list with email about the business, but there were also other times where our customers got a virus, and they didn't know about it."

Regardless of the cause, PrimeLink needed to figure out who in its network was

sending out exorbitant amounts of email so that the ISP could contact them with a cease-and-desist order. Therefore, PrimeLink needed a tool to monitor traffic at the application level.

Koniszewski says that Xangati RPI set itself apart from the other solutions PrimeLink evaluated. Not only could it perform the aforementioned task, it could monitor a home or business customer's normal traffic pattern. And if this customer's traffic fell above or below that threshold of utilization, Xangati's solution would automatically notify Koniszewski's department with an alarm.

According to Koniszewski, PrimeLink started off by evaluating the hosted version of Xangati RPI to get a feel for its capabilities. Once the hosted solution passed its litmus test, Koniszewski's team brought the



## xangati

in-house appliance to determine its stability within PrimeLink's network. Xangati shipped the appliance out and sent one of its engineers to configure it. According to Koniszewski, the engineer stayed onsite for two days to make sure everything was up and running and conducted in-house training for PrimeLink staff.

"Once it passed that litmus test, it was already on our network and configured for us," says Koniszewski. "The entire process, from presales to evaluation to implementation to post-sales support, has been a very positive one."

#### **Changing The Conversation**

Before PrimeLink started using Xangati RPI, it didn't have a way to pull up historical data. Instead, the ISP had to pay somebody overtime to monitor a link. "Eighty percent of the time, [we] didn't see anything out of ordinary because we couldn't break it down by application, and we'd have to go back to the customer and tell them everything was fine on our end," says Koniszewski. Of course, these customers would again contact customer service, upset that PrimeLink couldn't resolve their perceived problems.

Since deploying Xangati RPI, those calls have dramatically been reduced, and conflict resolution improved. "One thing I hadn't considered at the time when we purchased [this solution] is that it changes the [customer sup-

been rolling out modifications to its dashboard and GUI to make it more user-friendly. Additionally, it now offers the ability to monitor port utilization, something very important to an Internet provider.

"Because we're a small ISP, we have to send our traffic to somebody, and circuits, whether they [are] through Qwest, AT&T, or Telus, are very expensive. You don't want to buy more bandwidth unless you really need it," says Koniszewski. "Not only has Xangati been good to shorten conflict resolution with our subscribers, it has also enabled [us] to have better control of our network utilization, and we can buy bandwidth as needed."

Koniszewski believes Xangati RPI's return on investment has been about 18 months. "Without [Xangati], we would have had to have hired another support per-

### Because of Xangati RPI, PrimeLink has cut down on truck rolls and the number of support people it uses to serve its customer base.

port] conversation from perception to reality, and when you're discussing facts rather than perception, it's a shorter, much calmer conversation," says Koniszewski. "My people aren't spending two to three days trying to track down what this customer's problem is [because] the diagnosis for [the] most part has been done by Xangati."

For example, Koniszewski tells the story of a customer who complained that every night at about 9 p.m., her Internet access slowed down dramatically. Garden-variety Web pages that normally took a second to load were taking from five to 20 seconds to load.

With Xangati RPI, PrimeLink pulled up this customer's utilization history, and because the Xangati solution could break it down by application, PrimeLink was able to show her the huge spike caused by her son's online gaming at about that time. "She knew [her son] was online gaming, but she wasn't

aware of its impact on the rest of her household's Internet access," says Koniszewski.

## Improving Service Without Increasing Resources

Because of Xangati RPI, PrimeLink has cut down on truck rolls and the number of support people it uses to serve its customer base, says Koniszewski. "And now, instead of saying, 'I don't see anything wrong,' our engineers say, 'This is what I see,' and provide documentation to back it up."

Moreover, Xangati isn't resting on its laurels, according to Koniszewski. Xangati has

son, but because we are able to pull customer data in historical and real-time context, we've been able to keep our head count static as our subscriber base has grown, which turns into revenue savings," he says. "The cost-benefit analysis has been a positive experience for us."

## Xangati Rapid Problem Identification System

A scalable appliance- and software-based or hosted solution that monitors network traffic to identify application and operational issues. By tracking flow information and IP packets, Xangati RPI can be configured to locate and analyze network problems automatically and provides the user with real-time visibility, along with historical information at the application layer of a network.

"One thing I hadn't considered at the time when we purchased [this solution] is that it changes the [customer support] conversation from perception to reality, and when you're discussing facts rather than perception, it's a shorter, much calmer conversation," says Frank Koniszewski, IP network engineer at PrimeLink (www.primelink1.com). "My people aren't spending two to three days trying to track down what this customer's problem is [because] the diagnosis for [the] most part has been done by Xangati."

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**OCTOBER 10. 2008** 

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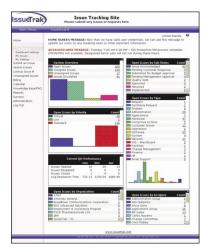
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**OCTOBER 10, 2008** 



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#### IssueTrak Issue Tracking Software

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IssueTrak's Task Manager lets you assign multiple tasks to be completed within an issue. Choose a single or group of tasks from a menu or on an ad-hoc basis. The Task Manager will notify users that tasks have been assigned to them and cancel remaining tasks after a specific response to a previous one.

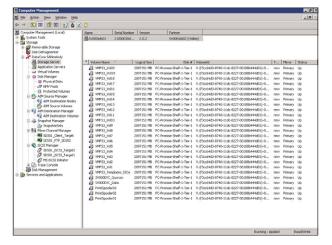
The Quick Picks feature lets you auto-populate your entry screen by selecting from a drop-down menu. Quick Picks can include tasks for a powerful combination.

The IssueTrak Dashboard lets you view metrics such as number of open, unassigned and escalated issues; average response time; servicelevel agreement compliance averages; and open issues by assignee, type and priority.

Project Management lets you create projects and assign issues and tasks. From the Project Summary screen, you can view a high-level or detailed list of all projects. IssueTrak also features automatic scheduled reports with several reporting options. Pre-existing summary reports and saved searches can be run on the fly.



**STORAGE OCTOBER 3, 2008** 



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**SECURITY** 



Configuresoft Compliance Checker is a utility that checks VMware ESX environments for compliance and produces reports for review or archival.

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Every company needs to ensure compliance, so having a free tool that helps administrators meet compliance standards in real time is invaluable.

Configuresoft addresses this very issue with the Configuresoft Compliance Checker, a utility designed to help VMware customers ensure security compliance with industry standards and best practices across ESX virtual infrastructures. Compliance Checker compares ESX hosts to VMware Infrastructure 3 Security Hardening Guidelines and the CIS (Center for Internet Security) VMware ESX Server Benchmark.

The Compliance Checker can run compliance tests and produce detailed reports with rule-byrule feedback on up to five ESX servers simultaneously, supports VMware ESX hardening guidelines and CIS Benchmark for ESX, and lets users view assessments by both machine and benchmark type. Users can print, save,

and email assessment reports for review by other parties or for archival purposes.

Users can download the Compliance Checker from Configuresoft's Web site directly to a Windows desktop and manage it through an intuitive Web-based interface that lets administrators easily locate and specify which ESX hosts need to be tested. The report itself sports detailed rule by rule feedback.

The Compliance Checker provides audit-quality reports, problem detection before an environment becomes insecure, and remediation advice. Users also gain access to podcasts, webinars, and whitepapers on compliance and security issues, and Configuresoft offers a knowledge base for troubleshooting and additional information.



**SECURITY SEPTEMBER 26. 2008** 



**Embotics V-Scout is a** free tool for gathering and managing information from **VMware VirtualCenters** 

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Simplified Management, Effective Oversight & VMware Reporting

### **Embotics' V-Scout**

Time is of the essence, and rarely is it more so than for IT and data center professionals who have workers depending on them. Embotics offers V-Scout as a solution to the problem of time spent collecting and collating information from VMs. V-Scout is free, agentless, and can start working for you minutes after you download it.

V-Scout is designed to save users the time spent gathering, formatting, updating, and reporting on VMs in VMware Virtual-Center-enabled environments and provide administrators a single, centralized management source. Without V-Scout managing the information from multiple VirtualCenters requires manual effort; limited filtering, searching, and reporting can be tedious; and it can be difficult to track custom VM

Features of V-Scout include aggregation of data from up to two VMware VirtualCenters, online and offline VM discovery, automatic

VM tracking, up to 10 custom attributes, and an unlimited number of reports. Types of reporting include VM population trending reports, guest OS inventory reports, host inventory reports, managed system inventory reports, VM inventory reports, and virtual infrastructure summary reports.

Reports offer information such as historical growth, costs, trend protection, the number of running and total VMs, and templates for each type of guest OS in table form. Other provided information includes sums and averages for host inventory and each Virtual-Center being managed, detailed inventory information for a VM, and summaries of information by Virtual Infrastructure versions in table form.

Ideally, V-Scout helps companies assess virtualization deployments and gain control over their infrastructure.





**NETWORKING & VPN SEPTEMBER 26, 2008** 



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#### Shavlik NetChk Protect 6.5

Virtualization is a godsend for the enterprise. Along with green IT practices, virtual computing can reduce costs through greater efficiency and energy savings. On the other hand, if your organization relies on IT workers to manually patch, secure, and maintain the networkespecially in the more complex environment of a virtualized data center-your costs might be rising rather than dropping.

Shavlik says that its NetChk Protect 6.5 enterprise security management tool is the first to automatically roll out patches and eliminate unwanted software from not only physical

systems and online virtual machines but also from offline virtual machines, as well. The software seeks out and discovers offline virtual assets to ensure that they are kept up-to-date, giving your company the ability to demonstrate due care for regulatory compliance purposes.

NetChk Protect 6.5 operates with either an agent-based or an agentless architecture, according to your organization's needs. It automatically identifies Windows applications and operating systems, determines whether updates are available, and rolls out necessary patches. It can discover and fix security risks such as

malware and misconfigured systems, too, with its Active Vulnerability Management capabilities.

Shavlik's software also offers flexible customization through its Any Patch, Anywhere Technology. A wizard-like editor lets you create custom patches to meet your network's specific needs.

The result is faster, more effective security and management of a mixed environment, all through a single console with an easy-to-use interface. With Shavlik's NetChk Protect 6.5, your organization may begin to realize more of the savings virtualization can offer.

**SEPTEMBER 26, 2008 CLIENTS** 

**Rugged Mobile Computing** 

## Intermec CK3

Every enterprise seeks to lower expenses and streamline business practices; for data capture and communication applications, Intermec has introduced the CK3 mobile computer to facilitate these improvements.

Primarily intended for warehouse operations, the handheld CK3 incorporates a number of features designed for highly adaptable data, image capture, and secure wireless capabilities. The CK3 includes 1D and 2D barcode scanning, which can be accomplished either up close or far away, regardless of the lighting situation. It can

also scan damaged or low-quality barcodes.

The CK3's wireless features include an 802.11a/b/g wireless LAN with CCX (Cisco Compatible Extensions) certification and support for VoIP and Bluetooth. Other features include speech recognition, an optional RFID reader, and support for integration with Intermec's PB42 receipt printer, PB50 label printer, and other mobile printers.

Intermec's TE 2000 and iBrowse software come packaged with the CK3, which operates on the Windows Mobile 6.1 platform.

TE 2000 uses terminal emulation and supports multiple host sessions, security, session persistence, and a complete set of data collection options. iBrowse is a data collection browser that does the job yet limits users to only preapproved Web sites.

With Intermec's SmartSystems technology, users can streamline IT tasks and reduce costs by installing software, configuring settings, and remotely connecting to the network. The CK3 also has several accessories including docking stations, an attachable handle, and an IP30 handheld RFID reader.

The Intermec CK3 is a rugged, handheld mobile computer designed for industrial-class applications, data capture, and communication.

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#### 2U Server - ASA2121i

1 CPU, Intel Quad Core Xeon 5310, 1.6GHz 8MB 1GB (2X512MB) 667MHz FBDIMM Installed, 6TB (12X 500GB) SATA II Installed, Max - 12TB. 1X 12 Port SATA II RAID Controller Installed. 2U Rackmount Chassis, 500Watt Redundant PS. 12 Drive bay, Rails Included. Price Starting at: \$4275/-



#### 3U Server - ASA3161i

1 CPU, Intel Quad Core Xeon 5310, 1.6GHz 8MB 1GB (2X512MB) 667MHz FBDIMM Installed, 8TB (16X 500GB) SATA II Installed, Max - 16TB. 1X 16 Port SATA II RAID Controller Installed. 3U Rackmount Chassis, 800Watt Redundant PS. 16 Drive bay, Rails Included. Price Starting at: \$4995/-



#### 5U Server - ASA5241i

1 CPU, Intel Quad Core Xeon 5310, 1.6GHz 8MB 1GB (2X512MB) 667MHz FBDIMM Installed, 12TB (24X 500GB) SATA II Installed, Max - 24TB. 1X 24 Port SATA II RAID Controller Installed. 5U Rackmount Chassis, 930Watt Redundant PS. 24 Drive bay, Rails Included. Price Starting at: \$7345/-



#### 8U Server - ASA8421i

1 CPU, Intel Quad Core Xeon 5310, 1.6GHz 8MB 1GB (2X512MB) 667MHz FBDIMM Installed, 2X 80GB SATA II 7200 RPM OS drives Installed 20TB (40X 500GB) SATA II Installed, Max - 40TB. 2X 12 Port & 1X 16 Port RAID Controller Installed 8U Rackmount Chassis, 1300Watt Redundant PS. 42 Drive bay, Rails Included. Price Starting at: \$12735/-



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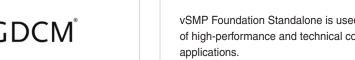
The innovative Versatile SMP™ (vSMP) architecture from ScaleMP aggregates multiple industrystandard x86 systems into a single virtual system, delivering a high-end SMP computer. The ScaleMP vSMP Foundation aggregation platform creates virtual systems ranging from four to 32 processors (128 cores) and up to 1TB of shared RAM. It is optimized for compute- and memory-intensive workloads, making it ideal for the high-performance computing market. It provides a single virtual system across multiple nodes of a cluster or blade server system, dramatically simplifying installation and ongoing management. It delivers the operational simplicity of traditional SMP systems while maintaining the low acquisition costs associated with clusters.

The ScaleMP vSMP Foundation Standalone software can be used to run extremely large jobs, models, and simulations, even with a single process; with up to 1TB of RAM, it fits most of the large simulations in the industry. By providing up to 128 cores of processing power, parallel applications significantly improve performance and run time; they use different parallelization models such as threaded, OpenMP, and MPI with the highest performance.

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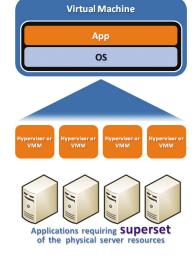
Built by data center professionals for data center professionals, the nlyte® suite from GDCM (Global DataCenter Management) optimizes data center assets by visualizing, monitoring, and modeling current and planned changes to this critical infrastructure. The software provides immediate feedback on planned and implemented changes to facilities, racks, servers, cabling, power connections, and other assets and resources. With a few clicks, nlyte can supply users with the data they need to identify important trends or analyze how planned

changes will impact redundancy, power, cooling, space, network, and cable capacity.

The nlyte suite's auto-allocation capability removes the guesswork of finding the best rack for new server placement and, in many cases, can recover unused rack capacity, delaying or eliminating the need to expand the existing facility. The nlyte workflow module can help establish standard policies and procedures for data center operations, reducing implementation time and eliminating costly mistakes.

Companies using nlyte are seeing significant reductions in costs related to power, space, and human capital, with an ROI of less than 12 months depending on installation's size.





**Aggregation** 

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# Small Storage Wonders

#### These Smaller Companies Are Ready To Take On The Storage Scene

by Elizabeth Millard

LARGE MANUFACTURERS have their places in the data center, but IT managers should also consider some smaller companies, which can be more nimble in terms of innovation and support. Here's a trio of manufacturers that

shouldn't be overlooked in the next round of purchasing research.

#### **ExaGrid Systems**

ExaGrid (www.exagrid .com) doesn't compete with major players such as NEC and IBM, which tend to handle data that needs to be accessed frequently, notes Marc Crespi, the company's vice president of product management.

Instead, ExaGrid provides disk-based backup that combines SATA drives, compression, and byte-level data deduplication for fast backups and restores.

"Most companies in our market focus on how wonderful deduplication is, and definitely, it is," says Crespi. "But not everybody has thought about how backup relates to deduplication, and this is where we're unique."

The company's approach minimizes the amount of data that needs to be stored and provides compression, he explains, so only changes are backed up, not full file copies. It may seem like a minor tweak, but it can have a significant impact because it reduces the amount of disk space required and speeds up the process.

"You have a limited amount of time that backups can run because it's intrusive, so you need it as fast as possible," Crespi says. "ExaGrid has made it so that data deduplication doesn't interfere with speed."

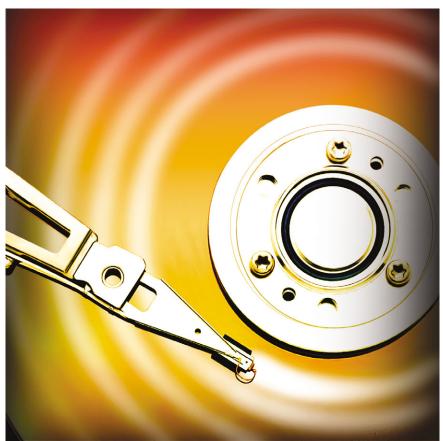
In recent years, ExaGrid has expanded elements that maintain performance so backup performance doesn't degrade. These include network throughput, processor capacity, and memory. Crespi believes other vendors only add capacity, but without throughput, it's like doubling the cars using a highway without broadening the highway itself.

#### **Ocarina Networks**

One of the newest manufacturers in the marketplace, Ocarina (www.ocarinatech.com) boasts an appliance designed to reduce file size on primary NAS storage

and can also minimize size on files that are already compressed.

The Ocarina Online Storage Optimization product has two parts: optimizers and readers. Customers can deploy load-balanced clusters of as many optimizers and readers as they need or can just have one pair. The opti-



mizers read existing files, optimize them, and write back the files to a chosen storage platform, while the readers allow users, applications, and servers to read and write to files.

In late September, the company unveiled a three-step system called ECO, which stands for extract, correlate, and optimize, that it claims is the world's first contentaware optimization technology, promising to deliver a 10-to-1 reduction in the size of tapping available resources, she believes, making it challenging for companies to support and manage the necessary infrastructure.

"Just as we have seen file system software revolutionizing file-based storage, we will also witness optimization revolutionizing how efficiently data is written to disk or tape," says Greyzdorf. "Ocarina is clearly a standout performer."

Another analyst, Andrew Reichman at Forrester, notes that if Ocarina can deliver what it promises, it could dramatically shake up the enterprise data storage world "and move the industry along the path to keeping up with the astonishing but widely accepted forecasts for growth of file data."

#### **StorMagic**

With lower infrastructure acquisition costs and the ability to run on IP networks, iSCSI storage products are especially attractive to small and midsized enterprises, believes Jack

Fegreus, CEO of technology testing firm and consultancy openBench Labs. Yet some SMEs have been hesitant to fully explore the technology, he adds.

In a recent product test, Fegreus noted that both DAS and NAS have served IT well in the past but that achieving higher levels of resource utilization often requires technologies that are based on shared network storage.

That's where StorMagic (www.stormagic.com) can come in. The company was started by executives from the storage industry's big leagues, including Seagate and Adaptec, with the aim of creating products that can centralize management for SMEs.

The StorMagic SM Series iSCSI storage product provides a consolidated approach that promises fast

installation, data migration without downtime, easy management, and no need for backups. Those are bold claims, but the company is gathering momentum as a source for one-button iSCSI management.

Another strong SME choice is the Stor-Magic SMTB Storage Area Network, developed specifically for smaller enterprises, according to Mike Stolz, the company's vice president of sales and marketing.

# ExaGrid provides disk-based backup that combines SATA drives, compression, and byte-level data deduplication.

files by combining compression, deduplication, and "patented Ocarina information extraction algorithms," according to the product's launch announcement.

The company could get more attention in the near future thanks to the rising demand for storage optimization, notes Noemi Greyzdorf, research manager of storage software at research firm IDC. Rising energy costs and exponential data growth are With the product, which was introduced in June, SMEs can consolidate their storage needs, Stolz says: "We are replacing a typical 22-step setup of three applications with a six-click, intuitive appliance setup." He adds that the StorMagic SM series software that runs on the platforms provides more efficient implementation and management of the SAN for quicker deployment.

#### **Great Potential: Nirvanix**

Founded in 2007, startup firm Nirvanix (www.nirvanix.com) is one of the newest competitors in the growing online storage market, and the company was created to develop a cloud-computing storage model.

Founder and CEO Patrick Harr believes that "the box model is

dead," noting that traditional storage manufacturers won't be shutting their doors any time soon but that companies will be increasingly intrigued by the storage delivery approach.

Nirvanix competes most directly with Amazon's S3 (Simple Storage Service), with both companies aiming to win customers that need more space for Web applications and content, particularly Web 2.0style apps that generate considerable content.

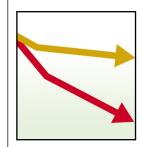
According to the company, the SDN (storage delivery network) provides intelligent, policy-based cloud storage and is powered by

that brings together all of Nivanix's globally distributed storage nodes. Nirvanix believes that this approach allows for better scalability and data availability, and it remains to be seen if more companies will catch a ride on the cloud as the company grows.

a proprietary clustered file system

## Semiconductor Growth Slows; PCs Steady So Far

Semiconductor sales will grow this year by 3.5%, not the previously expected 4%, says iSuppli. Worldwide semiconductor shipments will total \$280.1 billion, the company says, but if the economic crisis deepens, the outlook could take a turn for the worse. The market research company stands by its "cautiously optimistic" forecast for PC unit shipments: an increase of 12.5% year-over-year. Demand for DRAM started to weaken last month, which, along with upheaval among financial institutions, could signal softer sales



ahead in the PC sector. Difficult credit, falling consumer confidence, and corporate belt-tightening could put the forecast to the test.

News

#### CERN Seeks To Centralize IT Power

CERN has launched the Worldwide LHC Computing Grid, a global computer network designed to link together data centers in 33 countries. By leveraging this considerable collective computing power, CERN plans to conduct research into the nature of matter. The launch of the network will coincide with the relaunch of the Large Hadron Collider, CERN's much-publicized particle collider. The more than 140 linked data centers will be able to process an estimated 15 million gigabytes of data per year generated by experiments conducted with the collider.

## Japan's NTT Partners With EnterpriseDB

Following relatively closely on the heels of an announcement earlier this year that IBM was investing in EnterpriseDB, Japan's NTT (Nippon Telegraph and Telephone) announced it has begun a partnership with the database maker. This move is unusual in that most vendors have one, not two major investors. Financial details of the deal between NTT and EnterpriseDB were undisclosed.

#### AMD Earnings Improve

According to AMD, the chip maker is not experiencing hardships caused by the struggling economy. AMD's most recent earnings report showed improvement, partly because its new line of graphics processors has been in high demand since the product was released this quarter. While AMD still posted its eighth consecutive quarterly loss, the company posted higher earnings than what Wall Street had predicted. A contributing factor to AMD's slipping numbers is Intel. Intel is ahead in the market polls, but its chief executive hinted at potential future losses, as well.

#### Report Uncovers H-1B Violations

According to an internal report from U.S. Citizenship and Immigration Services, some employers are willfully forging documents, and "shell" companies are providing addresses of fake locations to obtain H-1B visas. The report, which was released by H-1B critic Sen. Chuck Grassley of Iowa, indicates that thousands of employers could be violating laws in the H-1B visa program. Illinois Sen. Dick Durbin has also been working to reform and implement strict enforcement. Both senators support the investigatory findings with 95% confidence. Congress is considering increasing the tech industry cap on the H-1B program.

## **Data Center Power Players**

Continued from Page 1 equipment down overnight, then bring it back up before your employees return in

the morning," says Abiog, adding that load shedding can significantly reduce an organization's energy bill. As utilities across the country introduce incentive or payback programs to encourage customers to shut down idle equipment, the already compelling ROI of intelligent equipment that allows such scheduling will continue to improve.

#### Server Technology

Calvin Nicholson, director of product marketing at Server Technology (775/284-2000; www.servertech.com), says data center managers haven't always focused on equipment cabinets as a potential source of energy efficiency. They should.

"There are no other companies that offer a complete solution and focus on this area of the market," says Nicholson. "We have the largest group of engineers in the industry working specifically on cabinet power solutions."

The company's AC- and DC-based cabinet PDUs offer a broad range of solutions for a similarly wide range of layouts and configurations. Its Fail Safe Transfer Switches deliver redundant power to single-cord devices within the cabinet. To manage it all, its Sentry Power Manager software solutions facilitate single-interface device management, even if those devices are located in

multiple locations. Advanced IP-based monitoring allows for efficient management of two PDUs and two temperature and humidity measurements via a single IP address.

Nicholson says what sets Server Technology apart is its ongoing investment in R&D. The company maintains the industry's largest group of engineers focused exclusively on equipment cabinet-based power distribution solutions.

"This keeps us constantly ahead of the curve, providing products that are cuttingedge and at the front of features and functions as the industry evolves," he says. It also allows Server Technology to customize its offerings as required. Lessons learned along the way are fed back into its customer support area, as well as its R&D team.

#### **Uplogix**

Managing remote sites effectively is a lofty idea that doesn't always work out as planned. When devices can't be recovered remotely and need to be physically powered off and on, data center managers are often forced to dispatch technicians to the remote location. It's expensive and time-consuming.

Devices from Uplogix (www.uplogix .com) allow administrators to securely access and control power to nonresponsive remote devices. Its Remote Management Operating System and SRM (Secure Remote Management) appliances ensure plug-level control over remote equipment.

"In this tough economic climate, enterprise IT staff are looking to cut costs but still deliver high-quality service," says Tom Goldman, CEO of Uplogix. "The Uplogix SRM platform solves this challenge by giving customers [a more] affordable option for locally managing their many remote locations than deploying scarce and talented IT staff or expensive third-party support. No other vendor offers a remote management solution with as much integrated functionality at an affordable price point."

The platform reduces downtime; helps support personnel identify root causes of outages; and centralizes monitoring and management through a standards-compliant, Web-based interface. Because Uplogix appliances connect directly to managed devices, monitoring, maintenance, and recovery tasks continue uninterrupted even 

#### **Greenest Provider: Chatsworth Products**

It isn't easy for data center managers to keep their cool when every new generation of technology runs hotter and consumes more power than the equipment it replaces. **Energy-hungry equipment** costs the company in two ways. First, it consumes more power. Second, it throws off more heat, which places an additional load on cooling infrastructure, further driving energy consumption.

Ian Seaton, technology marketing manager for Chatsworth Products (www.chatsworth .com), says simply cranking up the air conditioning isn't an effective strategy.

"Before the green wave, CPI [Chatsworth Products, Inc.] recognized the significant amounts of energy and power that were being consumed to cool increasing densities in the data center," he says. "So we set out on a path to develop solutions that would overcome these issues.

"As the innovator of passive cooling technology, CPI was the first company to explore passive cooling as an airflow management strategy and isolate hot exhaust air from cold supply air in cabinet spaces," he explains. "Initially, it was thought that only liquid or inrow cooling could be effective

on high-density applications, but passive cooling has been proven to be the smart and efficient choice to keep equipment cool."

This approach allows data center managers to maintain higher ambient air temperatures thanks to more focused direction of cooler air where it's needed most. Because every data center has unique needs, CPI will also work with customers to customize solutions to meet their needs. If they don't already provide a product or solution, they'll make it.

## **Fixing Network Security**

Continued from Page 1 Web software), criminals will compromise

#### **Attacking The Problem**

In the battle for network security, a first step might be to admit that the war will never really be won. Hackers and criminals will always devise new attacks, so the best policy is to keep reinventing the policies and procedures. Resting on one security plan and trusting it will succeed will surely

#### **End-User Education**

End-user education still plays a major role in security planning and will likely never become a secondary issue in a company of any size. Users should be updated on the latest major threats, such as clickjacking and social networking applications that infect systems. End users should also be reminded about security practices: Pay attention to any new social engineering threats that are intended to con end users and don't follow unknown links or download attachments from unknown sources. lead to identity theft, malware infections, and virus contaminations.

"The biggest problem here is obviously not updating the operating system and thirdparty software when security updates are available and the lack of updated security software, which leaves the PCs open to exploits," says Ferguson. "The other major issue is the human sitting behind the keyboard. Computer users need to be much more suspicious and not so eager to open that email attachment or click on that link. A little common sense goes a long way here."

Ferguson says the most recent form of attack is social engineering tricks that are hard to predict and scan on a network. For example, new "clickjacking" techniques which have recently spread into PDF documents and Flash files—con users into clicking a link that looks legitimate but actually leads to a site that dispenses spyware and bots that can scan networks for vulnerabilities.

"Traditional perimeter security [solutions] such as firewalls or antivirus are less effective as work boundaries disappear, and these solutions tend to only look for open ports or known viruses—missing most

Web-based threats," adds Willy Leichter, director of product marketing at Websense (www.websense.com).

Info-Tech's Quin says the most advanced method today for blocking network attacks is network access control, or NAC-typically an appliance that goes well beyond simple security scans. NAC is role-based, meaning it is a technology that can adjust to the changing landscape of network security.

"NAC is a great tool to protect the enterprise from external threats that bypass the enterprise gateway, but internal threats are as problematic as external threats or even more so," says Quin. "While a number of new tool types-such as data leakage protection, or DLP-are available, probably the most valuable tool that SMEs can be investing in is a log aggregation and presentation type tool. These products can pull all the information that businesses are already collecting in system logs and correlate them to present a clearer and more concise view of what is happening across the network."

#### The Web 2.0 Threat

Another new frontal assault comes from Web 2.0 sites such as Facebook and MySpace, which are treading on new ground as far as applications that exist on the Web but can easily infect client systems

and servers. For these tools, it's almost impossible to use a signature file system that managers update (even automatically) to block threats. Instead, the security product has to examine the type of traffic coming into an organization and block according to the type of in-bound data.

"To effectively deal with Web 2.0 threats, a product needs to examine the actual content and understand the context of communications," says Leichter. "They need to examine inbound and outbound Web content in real time, allowing organizations to apply more granular policy controls. Many organizations find they need to allow access to networking sites such as Facebook. However, legacy security systems can only determine whether Facebook as a whole has a good or bad reputation. The reality is that Facebook contains millions of pages of good and bad content, and organizations need to examine content in real time and apply access policies on a page-by-page basis."

In the end, understanding the complexity is part of the solution: There are just too many threats and too much potential for a breach. NAC appliances, security systems that analyze traffic, end-user education about recent threats, and security logs can all help an SME win the next battle.

**NETWORKING & VPN SEPTEMBER 19, 2008** 

## Virtual Server I/O

#### **Easily Monitor & Manage** With Xsigo's VP780 I/O Director

THERE ARE A LOT of disadvantages to using multiple cards, cables, and switches for server input and output. With each additional device and connection, it becomes harder and harder to manage data, deploy applications, and utilize server resources. However, with Xsigo's VP780 x2 I/O Director—the next generation of its virtual resource hardware and software architecture—you can use virtual



resources in place of physical cards and unified fabric to replace multiple cables.

The VP780 x2 I/O Director delivers 20Gbps of bandwidth to each server and lets users monitor and control their I/O topology in real time from a single view that extends from the virtual machines to the physical

switch ports. The new I/O Director lets you access traffic statistics from third-party tools for enhanced performance monitoring. Improved SAN and iSCSI boot capabilities allow users to boot any server from any Fibre Channel or iSCSI LUN for quick redirection of server resources. The VP780 x2 I/O Director also includes role-based access control to maintain existing lines of management demarcation.

By replacing fixed resources with conveniently managed virtual resources, IT staff can move connectivity from one server to another within about 30 seconds without requiring any recabling. The Xsigo VP780 x2 offers scalable storage and network connectivity, and its high-speed, low-latency, hardware-based design lets you maintain I/O identities, even though an I/O migration. The Xsigo VP780 x2 I/O Director is a 4U-high unit that will interoperate with your existing servers, storage, and networking equipment.

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# Intrusion Defenders

#### A Glimpse At Vendors That Can Help Detect & Prevent Incoming Threats

by Christian Perry

As WORLDWIDE THREATS continue to make virtual mincemeat of networks at organizations of all sizes, security is now of top concern for IT managers. In fact, a recent CompTIA survey found that network data security is by far the top network-related concern of IT professionals, with concerns over human error a distant second. Today's intrusion detection and prevention market is rapidly expanding to handle this growing

concern, and here are several companies to watch in this area.

#### **Untangle Networks**

When attempting to navigate the deep waters of intrusion detection and prevention, a smaller enterprise can easily feel like a small fish in a huge pond. But the mission of Untangle Networks (www .untangle.com), which provides an open-source network gateway with 14 applications that block a wide range of security threats, is to simplify IT for small enterprises.

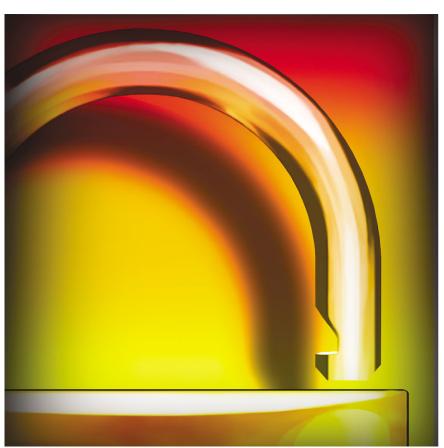
"The small-business market is largely ignored by IT vendors who tend to either sell consumer software through Best Buy or truly focus on the midmarket with their SMB-targeted product lines," says Untangle CTO Dirk Morris.

Untangle's free Intrusion Prevention uses a preconfigured, signature-based IPS (intrusion protection system) to deliver round-the-clock network prevention that minimizes false positives. This application leverages Snort, the popular open-source IDS/IPS, but uses a custom Untangle scanning engine and pretuned default settings, as it is bolstered with regular updates.

According to Morris, Intrusion Prevention was built specifically for small enterprises—in fact, the signatures have been tailored specifically so that the IPS application can be deployed with one click. Further, simple checkboxes in the GUI enable each signature to be set to block and/or monitor the network traffic

depending on the administrator's preference for IPS or IDS.

"Intrusion detection and prevention is notoriously difficult—for large organizations and small alike—in that it requires a lot of fine tuning to make sure that the settings and configurations are correct to accurately identify threats," Morris says. "Larger companies have the manpower and expertise to do this, but small businesses often don't. With Untangle, small businesses get the benefit of Snort, which is the



industry standard for intrusion detection and prevention."

#### **Top Layer Networks**

With thousands of new software vulnerabilities emerging every year, traditional security infrastructures can crumble under the heavy demand to keep enterprise assets safe and secure. Particularly in midsized and larger enterprises, adding another layer of security can be a difficult process, but the IPS 5500 series from Top Layer Networks (www.toplayer.com) can be seamlessly deployed in-line.

"We offer a family of IPS 5500 appliances, with thousands of prepackaged rules and signatures, together with an integrated security event reporting

## **Great Potential: TriGeo Network Security**

Adding point solutions to an existing security architecture can be an expensive proposition for SMEs, particularly when window shopping at vendors that sell products originally intended for large-scale deployments. However, it doesn't have to be that way, as shown by TriGeo Network Security (www.trigeo.com), which focuses on securing small and medium-sized enterprise networks.

The TriGeo SIM (Security Information Manager), a suite of network security appliances, combines real-time log management, event correlation, active response, and endpoint security to provide extensive network security control. Like Untangle, TriGeo uses Snort, bundling it in fully configured fashion with the TriGeo SIM. TriGeo includes more than 650 prebuilt correlation rules with its SIM, using them along with

an extensive selection of active responses to drive its intrusion prevention engine.

According to the company, it's now common for enterprises to be regulated by multiple agencies, which in turn fuels the need for several of TriGeo's features, including administrative procedures, physical safeguards, technical security services, technical security mechanisms, and others.

module that features a real-time dashboard and strong forensic, compliance, and alerting capabilities," says Peter Rendall, CEO of Top Layer. "By combining best-in-class protection with high performance, the latest cyber attacks are blocked in real time without disrupting legitimate network traffic. Our products are purpose-built, and we design them to perform reliably while defending against brute-force attacks to ensure complete network integrity."

The IPS 5500 allows plenty of flexibility to accommodate varied security environments, allowing deployment at the perimeter, at the network core, on internal network segments, or at remote site locations. The product's multistage defense thoroughly inspects all traffic to prevent vulnerability exploits, thwart hybrid and application-level attacks, provide P2P (peer-to-peer) security, protect VoIP infrastructure, and more.

Top Layer offers a unique IPS trade-up system in which companies that are dealing with vendors that are exiting the IPS market, being pressured to sign higher maintenance contracts, or simply wanting to

replace IPS gear without capital expenditures can trade up to the IPS 5500 series at no cost (certain restrictions apply).

The company also has a keen eye targeted on future technologies. Rendall says that organizations continue to accelerate adoption of 10Gb Ethernet network architectures to accommodate disaster recovery requirements, virtualization, unified communications, storage growth, and the natural refresh cycle. Considering that these networks can send and receive 10Gb of data per second, Rendall says, a 10Gb IPS must be capable of inspecting 20Gb of data per second.

"From a practical perspective, high availability requires that a single 10Gig IPS box must be

capable of inspecting 40Gb of data per second in the event one network link fails. Top Layer is investing in our fourthgeneration security platform to address these demanding performance requirements," he says.

#### **SecurityMetrics**

Not all—or even many—SMEs have budgets robust enough to accommodate an assortment of separate security devices. For these enterprises, it can make sense to look for a device that combines security technologies at an overall lower price. SecurityMetrics (www.securitymetrics.com) offers an appliance that not only protects networks from external attacks such as Denial of Service, worms, and intruders but also protects the internal network.

The SecurityMetrics Appliance integrates both hardware and software and provides advanced intrusion detection and prevention. This device also allows enterprises to perform vulnerability assessment scans, receive correlated VA/IDS alerts, and configure optional firewall and router modules. If this sounds like a difficult beast to tame, you might be surprised to learn it's not.

"Our intrusion detection and prevention systems are designed to be extremely easy to install and operate," says Security-Metrics CEO Brad Caldwell. "We make the systems so anyone can use them. We ship our units preconfigured to the customer's environment for a simple plug-and-play installation."

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## Novell To Purchase Managed Objects

Novell will acquire Managed Objects, a business service management software provider, for an undisclosed sum. With the acquisition, Novell will be able to incorporate Managed Objects' service modeling and analysis tools into its own identity, data center, and asset management software. Novell will integrate Managed Objects into its Systems and Resource Management unit; the company also plans to retain the majority of Managed Objects' current employees. The deal is expected to close in the first quarter of Novell's 2009 fiscal year, which begins Nov. 1.

## Apple Asks For iPhone Suit Dismissal

According to recently released court documents, Apple has asked a federal judge to drop a suit filed by dissatisfied iPhone 3G users. The suit, first filed in August by an Alabama woman, alleges that the plaintiff's iPhone 3G did not provide reliable service but instead dropped calls, connected unreliably to AT&T's 3G network, and operated slower than advertised; more users later joined the suit, seeking class-action status. However, Apple claims that the suit should be thrown out because the plaintiffs did not ask for a repair, replacement, or refund from the company, which is required both by Alabama law and in the terms of Apple's warranty.



## Micron Buys 35.6% Stake In Inotera Memories

Micron Technology will purchase a 35.6% portion of Inotera Memories from Qimonda, which created Inotera in a joint effort with Nanya Technology. Nanya will continue to own a 35% stake in Inotera, which is based in Taiwan. As part of the deal, Micron and Nanya will take over control of two 300mm wafer fabrication factories that produce a reported 120,000 wafers per month. Micron, the largest maker of memory chips in the United States, reportedly obtained a \$285 million loan from unnamed sources to complete the deal, which will take place in two stages. "Micron will gain greater scale in DRAM, reduce our operating expenses per wafer, and have access to a very cost-competitive operation," says Steve Appleton, Micron chairman and CEO.

#### Employees Are Increasingly Mobile

By 2012, about 73% of workers will be mobile, meaning they will have wireless access to work email or applications through a smartphone or other personal device, according to a new report from Forrester Research. Currently about 20% of the workforce consists of mobile information workers or frequent travelers or telecommuters who need mobility support from their workplace; that number will jump to 34% in the next four years. Mobile task workers will grow from 10% to 15% during the same time, the



## Data Center **Equipment Disposal**

#### **Small Vendors Offer Secure & Environmentally Friendly Services**

by Bruce Gain

MOST DATA CENTER admins do not need to be reminded of the risks that come with choosing an equipment disposal firm. After all, the stakes are high: Besides the ethical considerations of not doing harm to the environment, environmental laws mandating how electronics are disposed of are becoming stricter. Equipment that is removed from the enterprise carries with it many security risks if data is not properly deleted, and there are numerous legal liabilities associated with the potential security breaches.

It's easy to find a vendor that says it can offer data center equipment disposal services, but finding a good one can be a challenge. Rather than sifting through myriad available options, here are a few smaller electronics waste removal firms that may pique your interest.

#### **Horizon Datacom Solutions**

The value of your old networking equipment might be more than you think. Oftentimes, an admin might use a waste removal firm's services just to get rid of old routers, switches, and other data communications assets with little thought of their resale potential. However, networking equipment often retains a lot of its value over time.

"When you think of asset disposal, people think of desktops, laptops, and CRTs. But frankly, this equipment is not worth anything when it is a couple of years old," says Randy Murray, vice president of marketing and operations for Horizon Datacom Solutions (www.horizondatacom .com). "Your networking enterprise gear holds on to its value far longer than all of the other classes of electronics. Your networking gear that may be three to five years old still has value, and we can pay you

Established in 1995, Horizon Datacom Solutions will assess your networking equipment's value and then sell it for you through what the company says is an international network of channels. Potential buyers include brokers, resellers, and service repair companies, the firm says.

A key differentiator that Murray says Horizon Datacom Solutions offers

is the specialized security guarantee for networking equipment. While most reputable electronics waste removal and recycling companies can offer security guarantees, networking equipment carries with it specific risks. That is why Horizon Datacom Solutions takes extra care to remove any existing data on routers, switches, and other datacom devices before they are resold, Murray says.

"We require that all company information and configurations are cleared and reset," Murray says. "Everything is wiped clean."



#### **Global Computer Pro**

Perhaps your entire data center is going through a major renovation, and the main servers need to be replaced. Maybe management has decided that all of the enterprise's workstations and laptops need certain highperformance software, which means that about 1,000 PCs need to be replaced. Or maybe it is time to upgrade and replace the landline telephone service with a VoIP infrastructure. For such projects, Global Computer Pro (www.globalcomputerpro .com) offers removal services for a wide range of equipment, including but not limited to servers, laptops, workstations, printers, networking devices, and software. There is also the guarantee that you can get money back and assurance that any equipment is disposed of in an environmentally friendly way, says Peter Ruzich, global operations manager of Global Computer Pro.

"We resell your old products to offset the purchase of new equipment," Ruzich says. "You get it right back into motion."

A key element of Global Computer Pro's services is its environmental and security practices, Ruzich says. The firm uses a media wipe process that meets U.S. Department of Defense security specifications, which involves degaussing, shredding, and other methods. Besides providing references, the firm lets customers perform surprise inspections at its premises to ensure that security and environmental norms are met.

Global Computer Pro recycles electronic, metal, plastic, and paper materials that cannot be resold. "We reduce the customer's risk associated with environmental damage and data security," Ruzich says.

The firm also offers many options, includ-

ing specialized services to recover costs from old equipment that has been leased and needs to be repaired to meet certain specifications before being returned. Global Computer Pro will also pick up and prepare old equipment for use before being donated to an institution such as a school. "In all cases, we remove all of the customer's data asset tags and then refurbish the unit," Ruzich says.

#### RecycleYourMedia.com

Replacing tape involves obvious security concerns. After all, an enterprise might use tape as its core backup media, which can spell disaster if it were removed from the enterprise and then accessed by the wrong person. But safe and secure data removal is not the only issue. Too

much tape from data centers ends up in landfills, which represents unnecessary waste. As an alternative, RecycleYourMedia.com (877/798-2737; www.recycleyourmedia .com) says it provides tape removal services that are secure and environmentally sound.

"We build long-term relationships and trust with our clients. This is needed due to the security-intense nature of our service," says Brian Musil, senior storage acquisitions manager and data eradication specialist for RecycleYourMedia.com. "Also, since we are exclusively recycling data tape media only, [this] makes us a unique and a great alternative to shredding your tape media."

Instead of merely disposing of tape media in landfills, RecycleYourMedia.com says it only destroys the data and salvages the reusable parts of the tape cartridge for resale.

Musil believes competitors often do not fully erase data but rather erase just enough to be able to resell a product. "[It] is very dangerous to your company to leave your clients' confidential information [in] the hands of a third party, [so] you should always deal with a reputable company that will fully eradicate all of the data," Musil says.

RecycleYourMedia.com's processes meet legal requirements and mandates, as well, and are compliant with such standards as Sarbox, HIPAA, and Gramm-Leach-Bliley.

#### **Great Value: DMD Systems Recovery**

The value of old data center equipment can vary a lot, as many factors can determine whether systems have a high resale value. One of the main components of DMD Systems Recovery's (877/777-0651; www.dmdsystems.com) recovery services involves offering a detailed analysis of the resale value of old equipment. The firm has softwarebased tools that test server

and workstation processors, memory, hard drives, CD-ROMs, and external ports. A physical inspection is then done to determine the state of the motherboard's capacitors and other components inside the system.

"We try to keep equipment in service as long as possible. We bring it to our warehouse for testing and then refurbish

it to try to get as much life out of the equipment as we can," says Cliffie McKay, director of operations for DMD Systems Recovery. "If all of the physical parts on a server or [workstation] are good, we will repaint the plastic and test all of the components, and make [the system] look as new as possible, if not better, and then remarket it."





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**CLIENTS SEPTEMBER 19, 2008** 

## A Touch Of The Future

#### Tyco Electronics Brings Touchscreen **Capabilities To High-Traffic Environments**

TOUCHSCREEN TECHNOLOGY is a powerful way to aid in carrying out tasks. Tyco Electronics has introduced two products designed to push the touchscreen envelope further, making it more useful for businesses and easier to use for consumers.

The Elo TouchSystems 1900L and 2200L are high-resolution LCD touch monitors with zero-bezel design and wide aspect



ratios, which enable the entire surface of the monitors to be used for screen space.

The Elo TouchSystems screens employ APR (Acoustic Pulse Recognition) technology, which works by recognizing the sound of a stylus touching the screen and reacting accordingly. Therefore, virtually

any stylus can be used to manipulate items on the screens—a fingertip, a capped pen, the edge of a credit card, and so on.

Designed to last a long time with minimal maintenance, the screens feature zerodrift performance so they don't ever need to be recalibrated. The glass surface features optimal optical quality, durability, and stability and is designed for excellent dragging capabilities. Designed for use in high-traffic environments such as retail, hospitality, and public places, the glass is resistant to water, dust, and grease.

The screens also feature built-in, downward-facing speakers that save space and maintain the all-screen appearance. The stand is adjustable and can be mounted on a desktop or a wall. Other features include

integrated VGA and DVI ports, touchinterface USB (APR) and serial jacks, AC/DC power, and a headphone jack. Other manipulation buttons are located on the side of the devices to help prevent unintentional user disruptions.

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ARE YOU looking to extend the reach of an existing copper network? Trying to alleviate copper cabling congestion? Addressing EMI/RFI interference within your data center?

The Plug & Play Universal Systems Media Converter Module from Transition Networks lets you gain all of the benefits of a fiber-optic infrastructure and the advantages of a preterminated, modular solution, all while using the low-cost legacy copper electronics currently available.

A jointly marketed venture between two industry leaders—Transition Networks and Corning Cabling Systems—the Plug & Play Universal Systems MCM (Media Converter Module) is a Gigabit Ethernet (1000Base-SX) media conversion solution within a Plug & Play Universal Systems. Each Media Converter Module is configured with 12 modular RJ-45 ports on the front and two MTP Connector ports on the back. Each

port on the MCM converts a Gigabit Ethernet 1000Base-T signal-, transmitting over copper-, to a 1000Base-SX signal-, transmitting over fiber. Media Conversion Modules are powered by redundant power supplies. An optional remote management module is also available to alert network managers of a power supply failure or fan fault.

Whether using two modules in the 1U housing (24-port capacity) or up to eight modules in the 4U housing (96-port capacity), the MCM provides the highest density media conversion solution available. Using the Media Converter Module lets you reap all the benefits of installing a modular MTP connector-based fiber cabling system, while leveraging your existing copper-based electronics.

## Transition Networks Plug & Play Universal Systems Media Converter Module

Lets you take advantage of fiber-optic infrastructure while using existing copper electronics

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## NETWORKING & VPN

# **Extensive Virtual Monitoring**

up.time 5 Optimizes Performance, Capacity & Availability



5's enterprise-wide dashboards let you centrally manage your entire infrastructure.

VIRTUALIZATION HAS promised to help companies maximize their infrastructure investments while minimizing hardware and labor costs. So far, companies are saving on hardware, however more savings are available through better virtual systems management.

uptime software's up.time 5 is enterprise systems management software with virtual management and monitoring that optimizes virtual performance, capacity, and availability across all virtual technologies (VMware, AIX LPARs, Solaris Zones). With up.time 5, you can easily plan, manage, and monitor your virtual infrastructure.

Enterprise-wide dashboards let you centrally manage an entire global

infrastructure across environments (physical and virtual technologies), platforms, applications, services, and databases. up.time can be quickly deployed as a standalone solution or integrated with existing tools and frameworks in the IT stack.

up.time provides IT managers with the insight to more effectively manage their distributed applications and global services levels, as well as maximize enterprise-wide IT resources. up.time's cross domain, cross datacenter, and role based real-time dashboards provide system administrators with the necessary tools to better monitor the performance and availability of both their physical and virtual environments from a single centralized console. uptime software focuses on providing a unique client experience through a flexible engagement approach.

#### uptime software's up.time 5

30-day risk-free trial available

Systems Management software for SMB and Enterprise Companies

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## **Product** Releases

#### **LIENTS**

#### ■ Bricsys Vondle Trial

Bricsys released Vondle Trial, a fully SaaS-based project and data management system that customers can test out free of charge for 30 days. Vondle Trial requires only a user ID and password and a compatible browser (Internet Explorer, Firefox, Opera, and Safari). In terms of project administration, project documents and data are stored on central servers to allow customers to share content both inside and outside the organization. Vondle can contain address books, project calendars, project email, unlimited document folders, forums, and other items. For workflow and automatic synchronization, the workflow graphics are coded in the background and immediately ready for processing. When you click Vondle Explorer, you'll automatically synchronize offline files with the files on the server.

#### Messaging & Telephony

#### ■ Enterasys OpenScape

Enterasys has announced the Siemens Enterprise Communications OpenScape Mobility featuring enterprise telephony, video, unified communications, wireless, and fixed mobile convergence. OpenScape



offers the combination of Siemens HiPath MobileConnect, HiPath Wireless, and the Enterprise Mobile Client. HiPath Wireless (V5R3) is an 802.11n WLAN that offers increased security, high availability, and

PoE (Power over Ethernet). With HiPath MobileConnect Version 2, users can take advantage of extensive telephony features. The OpenScape Enterprise Mobile includes support for RIM, Symbian, and Windows mobile devices. Pricing is determined by the individual requirements of each customer.

#### ■ Microsoft Office **Communications Server 2007 R2**

Microsoft debuted Microsoft Office Communications Server 2007 r2 (Release 2). Office Communications Server 2007 R2 delivers new functionality that extends software-powered voice, particularly for remote and mobile workers; provides onpremise audio conferencing to help reduce operational costs; and introduces new developer advances, including the ability to build communications-enabled business processes. Microsoft's unified communications platform streamlines communications by combining email, instant messaging, conferencing, and voice communications onto a single platform.

Office Communications Server interoperates with legacy PBX and IP PBX investments, allowing customers to transition to the new platform without undergoing an expensive upgrade of their networks. Through integration with Microsoft Office, Microsoft Exchange Server, and Office SharePoint Server, Office Communications Server delivers one infrastructure for enterprise communications and one cohesive user experience. Key new features of Office Communications Server 2007 r2 include dial-in audio conferencing, desktop sharing, persistent group chat, attendant console and delegation, Session Initiation Protocol trunking, mobility and single-number reach, and more. Office Communications Server 2007 r2 will launch Feb. 3.

#### **NETWORKING & VPN**

#### **■ BMC Software Performance Advisor**

BMC Software has introduced Performance Advisor, technology that is part of BMC SQL Performance for DBS for z/OS, which is designed to give customers a proactive way to identify and resolve performance problems, reducing CPU consumption by up to 85% while increasing service levels and productivity. The tool is designed to help IT professionals better evaluate which problem applications will benefit from a database reorganization, saving time and processing power.

#### ■ Check Point Connectra NGX R66

Check Point announced the Connectra NGX R66, a remote access gateway that supports SSL VPN, IPSec VPN, intrusion prevention, and centralized management capabilities. Connectra NGX R66 secures the corporate network and leverages the organization's existing VPN infrastructure to allow users to connect from managed



PCs over an IPSec connection. The offering also takes advantage of integrated security features, including intrusion prevention and the ability to block viruses, malware, and malicious attacks. The DynamicID component also lets administrators send login credentials via SMS, eliminating the need for Smart cards and tokens.

#### ■ Cisco Wide-Area Application Services

Cisco Systems unveiled the Cisco WAAS (Wide-Area Application Services) designed to eliminate data loss, relieve bandwidth requirements, and reduce data replication and recovery times. The offering also lets organizations more widely distribute data centers while complying with regulations. One new feature of the



Cisco WAAS software is the Replication Accelerator mode, which lets users optimize the data center replication capabilities based on the storage applications in

#### ■ D-Link AirPremier

D-Link has announced its 802.11n WLAN wireless access points for small to mediumsized businesses. The wireless access points are designed to offer superior bandwidth and coverage, multiple operation modes, flexible management, and PoE (Power over Ethernet) capabilities. Among the APs is the AirPremier N Dual Band Access Point (DAP-2590) that features a rugged metal housing for fire-code compliance when placed in air passageways. Also available is DAP-2553, designed for growing enterprises. Other features of the APs include detachable antennae, signal rates up to 300Mbps, and WPA and WPA2 protection.

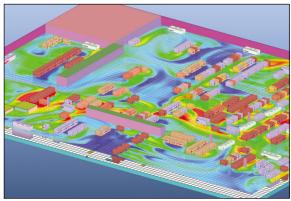
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PHYSICAL INFRASTRUCTURE

**SEPTEMBER 19, 2008** 

## Simulate Data Center **Cooling Performance**

**TileFlow Helps You Meet Cooling Challenges** 



With TileFlow, you no longer need to go through the expensive and tedious trial-anderror process to improve cooling. Data center managers, • Design highly efficient data centers In this age of increasing server heat

loads, proper cooling of server racks is a new challenge for data center managers. The key to reliable cooling in a data center is to meet the cooling air requirement of each server rack and to ensure an acceptable inlet temperature. There are many cooling solutions available, and choosing the right one that meets the practical and budgetary restrictions is not always easy.

TileFlow software is designed to help you in analyzing the cooling performance of an existing data center, identifying the causes of cooling problems and rectifying them, studying failure scenarios, planning for future upgrades, and designing cooling systems for new data centers.

TileFlow gives the pressure distribution under the floor, the airflow through perfoengineering and architectural firms, equipment manufacturers, and consulting companies can benefit from TileFlow. With TileFlow you can:

rated tiles and other sources, and airflow and temperature map in the above-floor space.

- Prevent heat-related outages of computer equipment in existing data centers
- Save on the initial and operating costs of cooling units Streamline installation and commis-
- sioning Make cost-effective investments in

## purchasing cooling-related hardware

#### **Innovative Research TileFlow**

Uses computational fluid dynamics to model airflow motion and temperature distribution inside data centers

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NETWORKING & VPN

SEPTEMBER 19, 2008

## Regain Control Of Virtualization

#### **BMC Introduces New Comprehensive Management Tools**



BMC Capacity Management eliminates guesswork by providing assessment, prioritization, and capacity monitoring capabilities.

WITHOUT A COMPREHENSIVE virtualization management solution, enterprises could face decreased revenue, dissatisfied customers, and diminished reputation.

BMC Software released nine new virtualization tools to help customers reach performance goals and increase compliance and visibility by addressing the key issues caused by virtualization.

BMC Virtualization Capacity Management and Planning Service helps organizations get started, regardless of their experience planning virtualization and consolidation programs. Application Performance and Analytics provides thresholds to keep service levels consis-

tent. BMC Performance Management monitors virtual infrastructure and applications.

BMC BladeLogic Virtualization Module for Servers increases security and boosts licensing and regulatory compliance. Customers have automated, closed-loop change and configuration control over their virtualized environment with BMC BladeLogic Operations Management Suite.

Other new tools include Capacity Management, Discovery Solution, Run Book

Automation Platform, and Run Book Automation VMware Adapter. Each of the new virtualization tools works with both virtual and physical environments to increase simplicity while reducing costs.

#### **BMC Software Virtualization Tools**

Nine new comprehensive virtualization management tools designed to combat problems and risks associated with virtualization

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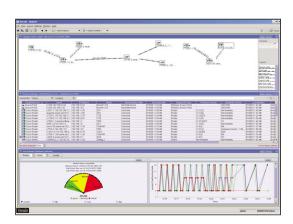


NETWORKING & VPN

August 8, 2008

## Manage IT Convergence

## Find, Configure & Monitor Your IT Assets & Services With Dorado Software Redcell OpsCenter



Redcell OpsCenter provides one console for automatically finding networked assets and understanding how they're interconnected.

A KEY PROBLEM FACING IT professionals is managing and monitoring their collection of resources with multiple vendor-specific and disparate tools, which keeps IT operational costs high and the ability to automate tasks impossible. To prevent business growth from devolving into IT chaos, administrators need a single, consolidated system they can trust.

Dorado Software Redcell OpsCenter is an all-in-one management system designed to consolidate IT resource management of multivendor, multitechnology networked environments.

From one console, Redcell OpsCenter finds all networked assets and subcomponents; understands how they are interconnected and associated; performs heteroge-

neous device configuration; and monitors the health, availability, and performance of your networked application infrastructure.

Redcell OpsCenter increases efficiency and productivity while reducing administration costs through the automation of key operational tasks and intelligent monitoring of services and devices—in a traditional and virtualized multidomain environment that includes routers, switches, wireless gear, security appliances, servers, PCs, storage devices, and networked printers.

OpsCenter provides functions such as automated device, link, and service discovery; CMDB inventory; health and performance monitoring; free-form configuration task execution; and reporting.

#### **Dorado Software Redcell OpsCenter**

Free trial available at doradosoftware.com/trials.html

All-in-one management system designed to consolidate IT resource management of multivendor, multitechnology networked environments

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www.doradosoftware.com



## **Product** Releases

Continued from Page 15

#### **■ EMC Connectrix NEX-5020**

EMC announced the EMC Connectrix NEX-5020, an FCoE (Fibre Channel over Ethernet) switch that supports 10Gb Ethernet network transmissions. The switch is based on Cisco's data center switches and, as a result, is capable of delivering line-rate, low-latency, and lossless 10Gb Ethernet switch-

## EMC<sup>2</sup>

ing that can handle the demands of multicore processors, VMware Infrastructure, and other virtualized server and SAN environments. EMC also announced that customers can use Emulex and QLogic Converged Network Adapters, which combine the functionality of an Ethernet NIC and a Fibre Channel host bus adapter, to connect servers to the Connectrix NEX-5020.

## ■ Fluke Networks OptiView Series III Integrated Network Analyzer

Fluke Networks has introduced a new version of the OptiView Series III Integrated Network Analyzer. The new OptiView Series III Integrated Network Analyzer is designed to find and manage IPv6-enabled tools and networks, which include IPv6-IPv4 tunneling. Using active discovery techniques and testing, it can locate document tools using IPv6, recognize open IPv6 ports, expose IPv6 via IPv4 tunneling, and distinguish between legitimate tunneling and illegitimate breaches in security. The new OptiView analyzer supports 802.11n wireless LANs, and it is outfitted with VoIP and wireless device discovery.

## ■ Motorola One Point Wireless Suite & Wireless Manager 2.0

Motorola unveiled its next-generation One Point Wireless Suite and announced the upcoming release of its Wireless Manager 2.0. With the addition of indoor wireless network design, management, and security software, the next-generation One Point Wireless Suite provides enterprises with powerful solutions needed to optimally design and manage indoor and outdoor networks. New management capabilities enable easy viewing of network status and quick identification and resolution of problems to help minimize network downtime.

The Wireless Manager 2.0 pulls together information and data from all tiers of the network (indoors and out), consolidates it, and delivers a unified view to network managers. Motorola's Wireless Manager 2.0 also offers network operators real-time visualization of the network in an embedded Google Maps environment along with historical trend analysis of how the network has performed and changed over time. The next-generation One Point Wireless Suite includes the following components, which can be used individually or in combination: MeshPlanner, PTP LINKPlanner, LANPlanner, Wireless Manager, and RF Management Suite. The Wireless Manager 2.0 is expected to be available in the first quarter of next year.

#### ■ Networks Instruments Observer 13

Network Instruments announced Observer 13, its newest monitoring platform. Observer 13 builds upon Network Instruments' retrospective network analysis (RNA) solution, GigaStor, and strengthens ORS' (Observer Reporting Server's) position as the central management hub for identifying and resolving performance problems. Observer 13's new features include real-time TopN enterprise-wide visibility through ORS NetLive, single-click root cause analysis from application-level ORS reports, Gigastor file structure and active reporting, and expanded support for 802.11n wireless.

#### ■ PacketTrap Perspective

PacketTrap announced PacketTrap Perspective, its network troubleshooting and remediation solution for single and multiple-site networks. PacketTrap's features include a platform that bypasses the workarounds in other products, performance baselines that represent regular and expected behavior for devices and network traffic, easy remediation, flexible reporting, and an easy-to-use monitoring dashboard.

#### PHYSICAL INFRASTRUCTURE

#### ■ Eaton 9395 Uninterruptible Power System

Eaton has increased the power ratings for the Eaton 9395 UPS (uninterruptible power system) to 1,100kVA. The Eaton 9395 System Bypass Module can operate in parallel function in tandem with 9395 UPSes. With increased flexibility, the 9395 can support large data centers and up to 32 power modules. The touchscreen LCD allows for enhanced user control, management of UPS status updates, and system navigation. Eaton's 9395 technology is designed to streamline operation efficiency and encourage the utilization of green data center processes.

#### SECURITY

#### ■ CA Gateway Security r8.1

CA introduced the CA Gateway Security r8.1, a unified gateway security offering that takes advantage of CA's antispam engines and smart filter technology to deliver a multilayered data security platform. CA Gateway Security r8.1 secures, monitors, filters, and blocks potential threats from incoming and outgoing Web traffic without negatively impacting productivity or business continuity. CA Gateway Security r8.1 features an enhanced phishing detection system, a new statistics function, an enhanced Active Directory, a Microsoft Outlook plug-in for enhanced end-user spam control and notification, and desktop notifications.

#### ■ Clearswift CONTENTsafe

Clearswift launched its CONTENTsafe DLP (data loss prevention) technology, which lets users designate documents and specific content as sensitive. The technology goes a step further and prevents the sensitive content from being posted online or disseminated in email. Clearswift CONTENTsafe works with the MIME-sweeper content analysis and management engine to ensure legitimate data sharing can occur without removing the protections. CONTENTsafe, with the capacity to protect up to 500,000 documents, will be available starting Dec. 2 as an extension to MIMEsweeper for SMTP.

#### ■ Comodo Security Solutions TrustConnect

Comodo Security Solutions' Trust-Connect service lets notebook users take network security into their own hands by keeping their wireless Internet connections secure in the office or while on the road. TrustConnect works with Windows, Mac, and Linux operating systems and uses an SSL certificate to create a VPN that lets TrustConnect protect a user's connection to the Internet no matter which network the user is logged on to. The software is available in a seven-day free trial and at monthly and annual rates.

## ■ Mazu Network Profiler & Altor VF Virtual Firewall

Mazu Networks and Altor Networks have announced that the two companies will work together to combine Mazu Network Profiler with Altor VF virtual

## **Product** Releases

firewall. Mazu Network Profiler is an application performance and security tool with its foundation on NBA (network behavior analysis). Altor VF virtual firewall is a security program for virtual servers. The combination is designed to provide a virtual security tool that uses NBA to guard and enforce policies on individual VMs (virtual machines). The software security program, Altor VF, operates via virtualized environment and implements security policy on a per-VM basis.

### ■ McAfee Total Protection For Secure Business

McAfee released the McAfee ToPS (Total Protection) for Secure Business, a comprehensive suite that offers SMEs security in an easy-to-manage package. McAfee ToPS for Secure Business provides desktop, email, Web, and data protection without creating a large management burden. McAfee ToPS

## **McAfee**<sup>®</sup>

for Secure Business includes critical elements of security that most medium-sized enterprises need. It integrates complete security for endpoints, email, Web, and data while providing a compliance infrastructure. It also includes McAfee's new Artemis technology to shield computer users against attacks as they happen without requiring a traditional scheduled update of threat signatures to be installed on the machine. Compared with the alternative of purchasing and maintaining multiple security products from multiple vendors, the solution will save enterprises time and money and will provide stronger defenses against known and unknown threats.

#### SafeNet KG-340

SafeNet has released the KG-340, a Type 1 SONET/SDH Encryptor that's used to protect classified data sent via high-speed U.S. government networks. KG-340 was developed under the NSA's CCEP (Commercial COMSEC Evaluation Program) and is suitable for high-speed transport encryption for optical networks operating at up to



10Gbps speeds. The company says it expects the U.S. government's intelligence departments, Department of Defense, and civilian agencies to deploy the KG-340 to help protect classified communications. The KG-340 offers full-duplex, hardware-accelerated encryption with HAIPE-compliant key exchange.

#### ■ Sendio Email Security Platform

Sendio announced its Email Security Platform, a scalable appliance the company says entirely eliminates spam, prevents viruses, and saves time for users and IT administrators. Sendio indicates the platform uses a verification model similar to those that social networking users use, as well as the "buddy" list models that IM providers use. ESP combines Silverlisting, which is proprietary technology that includes lowlevel SMTP tests to determine the legitimacy of a sending email server, and SAV (Sender Address Verification), which verifies the authenticity of first-time unsolicited senders, while also introducing human elements into the process. The ESP appliance is compatible with any email and directory server and is now available in ESP 360 (small to medium-sized businesses) and ESP 430 (enterprises) configurations. Pricing starts at \$1,995.

#### **SERVERS**

#### ■ Sun & Fujitsu SPARC Enterprise T5440

Sun Microsystems, along with Fujitsu Limited, has announced the release of the SPARC Enterprise T5440 server. Functioning as a traditional midrange system, the SPARC T5440 consolidates and virtualizes applications, which include OLTP databases, CRM, and ERP. It's the chip multithreaded server in



a 4U package. The SPARC T5440 server offers up to 32 cores and 512MB of memory for increased power management. The IFC (Intelligent Fan Control) shifts fan speed as a reaction to core temperatures; this feature reduces overall power consumption. Solaris Customers are able to run multiple Solaris 8 or 9 environments on one SPARC system. The SPARC T5440 offers greater expandability with 10GB of I/O bandwidth and optional external I/O slots for up to 28 PCI-E slots. The SPARC Enterprise T5440 server is available through resellers with a starting price of \$44,995.

#### ■ Unisys ClearPath Dorado & Libra Series

Unisys has released a line of new servers, including the high-end mainframe-class ClearPath Dorado 700 Series, along with the ClearPath Dorado 4000 Series and Libra 4000 Series mainframe-class servers, which can also serve as midrange-class servers. The ClearPath Dorado 700 Series was created for transaction processing environments and important programs that require constant availability. The ClearPath Dorado 4000 Series and Libra 4000 Series operate with the Unisys OS 2200 and MCP operating environments, respectively, and are founded on the quad-core Intel Xeon 7350 x64 processors. Additionally, Unisys released a new version of the Unisys Agile Business Suite and Business Information Server software.

#### **S**TORAGE

#### ■ 21st Century Software DR/VFI Version 4.3

21st Century Software has announced version 4.3 of its DR/VFI product. The new version provides organizations greater visibility and control over recoverability. New features include Real-time Critical File Journaling, which monitors and tracks file usage, and Real-time SMF Extractor, which reads SMF data for critical file usage and feeds it to the Analysis Engine to determine file update and backup requirements. Version 4.3 also features an improved JCL Scanning Facility and improved reporting for DB2 and backup status across an organization.

#### ■ ATTO Technology Celerity FC

ATTO Technology has announced Celerity quad-channel 8Gb Fibre Channel host adapters, ExpressSAS 6Gb SAS/ SATA host adapters, and the FastStream SC 8500 8Gb RAID storage controller. The Celerity FC host adapter provides 1,600MBps per port Fibre Channel throughput via eight lanes of PCI-E 2.0 bus interface bandwidth. Both target and initiator drivers are included for combining workstations or storage enclosures, and the Celerity FC host adapter is available in both single and dual channels. The ExpressSAS 6Gb SAS/SATA host adapters include initiator and target drivers, along with a variety of arrangements of internal and external connections.

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## **Full Disk Encryption!**



## **EasyEncrypt Upgrade Kit**

Hardware Encrypted Disk Drive

Replace the internal, non-encrypted disk drive in your notebook Protect your valuable data from risk of unauthorized access



With the EasyEncrypt Upgrade Kit, replacing your existing non-encrypted notebook disk drive with a state-of-the-art hardware encrypted disk drive is as easy as one-two-three. With the EasyEncrypt Kit, your operating system, applications, data and personal settings are seamlessly transferred to the new hardware encrypted disk drive which is then ready to replace the non-secure disk drive in your notebook.

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- Includes hardware required to complete the upgrade
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   Easy to use transfer data from within your Windows operating system

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## **Product** Releases

Continued from Page 17

#### ■ Axxana Enterprise Data Recording System

Axxana introduced its first EDR (Enterprise Data Recording) system for comprehensive disaster recovery and replication.



The cost-effective EDR offers zero post-disaster data loss, data protection through existing data center assets, and no limits to geographical distance for remote recovery. EDR allows for fully synchronous replication and unlimited critical/noncritical data classification. "Axxana is the only vendor to blend the full data-recovery advantages of synchronous data replication with the distance and cost advantages of asynchronous data replication," says Axxana CEO Eli Efrat.

#### ■ BlueArc Titan

BlueArc has announced software enhancements to its line of Titan unified storage solutions, providing cost-effective, flexible, and high-performance tiered storage that is easy to deploy and manage. Features include thorough dynamic caching, intelligent tiered storage functionality, and full utilization of a storage media mix that optimizes disk price and performance. The dynamic caching features include support for up to eight nodes (including virtual servers); support for up to 500,000 cacheenabled files; and SATA, Fibre Channel, and SSD functionality.

#### ■ COPAN Systems 100T Remote Office VTL

COPAN Systems has announced the COPAN Systems 100T Remote Office VTL, a tool with deduplication capabilities designed to offer fast, reliable, and secure backup for remote offices. 100T Remote Office VTL is designed to complement COPAN's 300T intelligent replication and scalable MAID capabilities. These technologies facilitate an enterprise-wide disaster recovery tool intended to meet growing recovery report objective and recovery time objective service-level agreements. Features of the 100T Remote Office VTL include seamless integration, enterpriseclass deduplication, affordable electronic replication, and secure data movement.

#### ■ Dorado Software Redcell Storage Commander

Dorado Software announced the Redcell Storage Commander, management software that provides automated configuration and management solutions for both iSCSI and Fibre Channel SANs. Redcell Storage Commander is an integrated add-on product to Redcell OpsCenter, and it's also integrated with all Redcell enterprise products. Redcell Storage Commander's integration with Redcell Network Commander provides comprehensive change and configuration management. The single-pane-of-



glass view allows for quick problem resolution without the need for multiple point tools. To reduce complexity of SAN configuration change management, Redcell Storage Commander includes configuration management that automatically retrieves, maintains, and restores network device configuration files and firmware.

#### ■ Enhance Technology UltraStor RS Series

Enhance Technology has announced the full compatibility of its UltraStor RS Series with clustering. The company guarantees the RS Series is fully operable with a cluster by connecting any UltraStor series to an existing cluster for high-capacity storage with mission-critical applications. To use this setup, the UltraStor device must be connected to at least two computers, with the user then setting up the amount of storage that each computer will be allotted. The UltraStor series uses RAID technology and is available in various configurations using eight or 16 hard drives.

#### ■ Hifn De-Dupe Accelerators

Hifn introduced a hardware-accelerated data deduplication platform that operates as a turnkey, drop-in solution that combines deduplication performance with the advantages of time-to-market. Hifn's family of De-Dupe Accelerators are designed to allow OEMs, system builders, and system integrators selling data deduplication solutions to quickly bring data deduplication products to market. OEMs looking to optimize and differentiate their current deduplication solutions can upgrade their current customer base with improved hardware acceleration technology. The new Hifn De-Dupe Accelerator 250 and 255 are the first products in a family of data deduplication solutions that extend Hifn's data deduplication platform. Hifn's De-Dupe Accelerator products also include Hifn De-Dupe Accelerator software to provide additional deduplication performance boost.

#### ■ HP StorageWorks

HP announced new disk encryption features and improvements to key management for tape libraries. The new hardware encryption features added to the HP StorageWorks XP24000 and XP20000 Disk Arrays reduce the risk of security breaches by protecting the data stored on each disk drive in the array. This is done without degrading the array's performance. By encrypting data on both disk and tape, customers can be confident that data at rest is secure and easily accessible. If disks are removed or stolen, the encrypted data is inaccessible and, therefore, protected. The XP array's redundant hardware platform with data replication capabilities ensures business continuity in case of disaster. HP enhanced its SKM (Secure Key Manager) hardware solution, which automates encryption key management for HP LTO-4 enterprise tape libraries. SKM 1.1 now supports up to 2 million keys. The SKM also provides high-availability features to reduce bottlenecks during periods of high transaction volume, as well as



## **Product** Releases

failover capabilities to safeguard keys in case of an outage. Encryption for the XP24000 or XP20000 will be available in December with the option to add the encryption feature to existing disk arrays. The Secure Key Manager 1.1 will also be available in December.

### ■ IBM System Storage SAN Volume Controller

IBM announced that its IBM System Storage SVC (SAN Volume Controller) software will be packaged for SMEs and is designed to help improve storage utilization rates, energy efficiency, administrator productivity, availability, and scalability of critical applications. Additionally, the software can im-prove the flexibility and responsiveness of IT infrastructures by creating consolidated virtual pools of information. The IBM System Storage SVC Entry Edition helps SMEs manage growth and improve the return on their storage investments, as well as simplify operations. SVC Entry Edition is built on affordable hardware intended specifically to run the new SVC Entry Edition software. Users of the SVC Entry Edition can keep control of storage costs to improve storage utilization and help reduce energy consumption.

#### ■ Idealstor SATA Drive

Idealstor has released a 1.5TB removable SATA drive for use with the company's removable disk backup systems. The company's removable drive backup systems are designed to replace or augment tape backup, and systems are available with one removable drive bay on up to eight bays with



removable drive capacities of up to 12TB per system. The company also uses a combination of hardware and software to make the drives removable for offsite storage and disaster recovery uses. Additionally, the systems use nonproprietary 3.5-inch SATA II drives as backup media that users can buy through regular retailers or through Idealstor channel partners.

#### ■ InMage DR-Scout 4.2

InMage has released DR-Scout 4.2 with enhanced software and improved recovery time. DR-Scout allows for application-consistent recovery and push-button failover. With the compilation of RTO, RPO, and ROI, DR-Scout can delegate both physical and virtual server protection to cut down on cycles. Other features are advanced report-



ing, role-based access control, rapid data migration, capacity-based licensing, and multiapplication support. Additionally, the DR-Scout includes the Profiler and Analyzer for disaster recovery within WANs. The DR-Scout runs on the following platforms: Windows 2008, Windows on Itanium, Microsoft Hyper-V, Citrix XenServer, VMware ESX, HP-UX 11iv3, and AIX 6.1.

## ■ NetApp Fibre Channel over Ethernet Storage Array

NetApp announced that its FCoE (Fibre Channel over Ethernet) storage array is powered by QLogic. The CNA (Con-verged Network Adapter) technology from QLogic is embedded in the storage arrays from NetApp to offer a single interface for converging networks and provide customers with the storage and networking combina-

tions needed to augment and enhance their data center environments. Additionally, QLogic 8000 Series CNAs have been qualifed by NetApp for server connectivity to converged fabrics with NetApp storage. The FCoE storage arrays extend Fibre Channel into the Ethernet environment to give enterprises the ability to unify storage and data networks, streamline IT operations, and improve staff productivity.

#### ■ Nirvanix CloudNAS

Nirvanix has announced that its Cloud-NAS, its storage software, is now available to companies seeking instant access to secure global storage on the Nirvanix Storage Delivery Network. CloudNAS software turns a standard 1U server into an infinite-capacity NAS filer. CloudNAS can provide up to 90% cost savings over traditional storage solutions and eliminates large capital expenditures while enabling 100% storage utilization.

### ■ StorageCraft Technology ShadowProtect Small Business Server Edition 3.3

StorageCraft Technology has announced the StorageCraft ShadowProtect Small Business Server Edition 3.3, which is designed to make the process of backing up, restoring, or migrating data easier and less complicated for small enterprises that use Microsoft Windows Small Business Server. StorageCraft ShadowProtect Small Business Server Edition 3.3 introduces HIR (Hardware Independent Restore) to aid businesses in the recovery process after a failure. Whether a business has a virtual or physical environment, ShadowProtect Small Business Server Edition 3.3 provides the ability to restore or migrate servers to a different small business environment. ShadowProtect Small Business Server Edition 3.3 also supports virtualization programs such as VMware platforms and Microsoft Virtual Server.

#### ■ Dell PowerVault DL2000 Powered By Symantec Backup Exec

Symantec and Dell are delivering a factory-integrated solution that provides quick and efficient disk-based backup and recovery. The Dell PowerVault DL2000 backup-to-disk appliance is a complete hardware and software data protection solution that includes preinstalled Symantec Backup Exec 12.5 and custom disk management features developed exclusively for Dell. PowerVault DL2000 powered by Symantec Backup Exec is a disk-to-disk solution that completes backup jobs 50% faster and restores data 83% faster than tape. The appliance incorporates Symantec's Granular Recovery Technology to allow users to perform a single-pass, application, or system-level backup of Exchange, SharePoint, Active Directory, Microsoft Windows Server 2008 Hyper-V, and VMware ESX environments while still maintaining the ability to recover individual objects. Through the automated management console, the PowerVault DL2000 powered by Symantec Backup Exec eliminates the need for manual installation and configuration, and it can complete setup and initial deployment in less than 20 minutes.

## ■ Zmanda Internet Backup & Recovery Manager

Zmanda has announced two new additions to its family of backup and recovery solutions. The first addition, ZIB (Zmanda Internet Backup), is an Internet-based backup solution for Windows environments that stores its backup files on Amazon's popular S3 (Simple Storage Service). The second addition, ZRM (Zmanda Recovery Manager) 3.0, is intended for MySQL on Windows and is an upgrade to Zmanda's MySQL database protection solution.



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# Virtualizing Messaging Systems

## **Experts Advise Enterprises To Proceed With Caution**

by Sandra Kay Miller

VIRTUALIZATION—everyone is doing it, right? In a March 2008 study conducted by Osterman Research, 22% of the respondents listed messaging-related virtualization as a high or very high priority. "So that means that 78% don't see it as a high priority," notes Andrew Barnes, senior vice president of corporate development for Neverfail (www.neverfailgroup.com),

which offers solutions for high availability, disaster recovery, and data protection.

According to Barnes, by virtualizing messaging systems, enterprises reap the same benefits as with other virtualization projects—reduction in hardware, space, and cooling costs, as well as centralized management. "Generally, virtualization is a good idea. It brings huge benefits in terms of management, lower cost platforms, but you've got to bear in mind the risks—

potentially lower performance and possibly downtime," he says.

#### **Pros & Cons**

Due to the criticality of messaging systems, it's recommended to verify that a particular messaging platform will function as

to performance degradation or even system failure if required resources are in turn consumed by another virtualized application. Barnes points out, "You don't want the CEO on your back complaining about downtime or interruption in messaging."

October 24, 2008

But companies are moving ahead with plans for supporting virtualized messaging systems. Keith McCall, CTO at Azaleos (www.azaleos.com) points to Microsoft Exchange's inherent architecture as one of the many reasons for organizations to virtualize. "Because Microsoft Exchange Server characteristically does not require the entire processing capabilities of a server, it is perfectly suited for virtualization where its requirements can be shared with other workloads," he says.

## It's recommended to verify that a particular messaging platform will function as required in a virtualized environment.

required in a virtualized environment. "I think that the thing to bear in mind as more people virtualize messaging systems is that messaging is the life blood of an organization. It's what keeps businesses running," says Barnes. "You've got to be certain that the virtualization itself is not going to introduce any risk that would result in the interruption of the messaging system. The last thing you want to happen is have virtualization create extended downtime during the installation or, worse, finding out that it doesn't perform as well or is less stable after being virtualized."

Messaging systems put more of a load on servers, meaning they tend to consume more I/O and memory. This has to be taken into account, especially because virtualized messaging systems will ultimately end up sharing physical resources. This could lead Rob Peglar, vice president of technology for Xiotech (www.xiotech.com), is positive about adding messaging to the list of systems being virtualized in today's enterprise but echoes Barnes' caution. "At the end of the day, that virtualized messaging server needs to interact with the network. It's still going to issue I/O through an operating system—be it virtual or physical—and those I/Os are going to have to be serviced."

Furthermore, Peglar explains that organizations moving toward virtualization have to look further than just the individual servers and systems. "If you intend to take an application like a BlackBerry server and virtualize that application for all the right reasons—efficiency, DR, the ability to move it around based upon need and put it in a grid-type infrastructure so you can run

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## The Pros & Cons Of Virtualized Messaging Systems

With any change to IT infrastructure, there are pluses and minuses. Let's take a look at what to expect with moving messaging systems into a virtualized environment.

#### **Pros**

Consolidation of hardware, which reduces the overall data center footprint and demand on power and cooling resources

Centralized management

High availability, load balancing, and better disaster recovery

#### Cons

Unable to interface with other networked systems, such as storage

Lack of professional skills, personnel, or tools to effectively manage virtualized environment

Performance degradation due to resources being engaged by other virtualized applications



# Disaster Recovery Testing

#### Make It A Benefit, Not A Burden

by Curt Harler

MANY MANAGERS FEAR that disaster recovery, aka DR, testing is expensive and disrupts daily operations. The onus is on IT staff to convince management that DR testing is more a benefit than a burden.

"While it's useful to have a written plan, it's more important to test that plan," states Stephen Lawton, senior director of strategic marketing for Acronis (www.acronis.com) in Burlington, Mass. "All one need do is look at the devastation in Texas or Louisiana to see what can happen when a natural disaster strikes. Companies without a plan in place, with data stored locally and offsite, can disappear as quickly as a twig hut on Galveston Island."

Testing helps with little problems, too. "Not all disasters are smoke and rubble. Most are just recovering lost files," says Jon Toigo, managing principal with Data software is updated, and that applications and the OS have the appropriate security patches, your DR testing is a maintenance issue."

He continues, "Every company needs a DR strategy. But just as important, every company needs to know that the plan will work. The only way to ensure a plan is adequate and that all of the employees know how to implement the plan is to test it."

#### **Not All About You**

When presenting a DR plan to management for testing, IT should focus on what's important to its audience—in this case, the bottom line. "Ask how long the company could survive if it didn't have its missioncritical applications. Without email or financial applications, a company comes to a grinding halt," Lawton says.

Management is not the only group that will benefit from testing DR. IT, like any corporate department, has staff changes. "It's critical that new staff members be trained on the company's DR plan," Lawton says.

"The only way to ensure a plan is adequate and that all of the employees know how to implement the plan is to test it."

- Acronis' Stephen Lawton

Management Institute (www.datainstitute .org) in Tampa, Fla. He says that testing is generally seen as "complicated, time-consuming, and a pain."

"Testing should not be looked at as a chore but rather as part of the regular security maintenance operation," Lawton says. "Just as you make sure your firewalls are working, antivirus and antispyware

An SME with 20 servers might have only four that are mission-critical. "Does everyone know which servers they are and which applications must be up and running all the time?" Lawton asks.

In a regional catastrophe, does everyone on the IT team know how to move key servers to a remote location? What kinds of preparations have been

## Planning Is Everything & It Has A Method

Being ready for an emergency is a never-ending cycle of being prepared and testing the plan. SMEs should tour the loop about once a quarter.



SOURCE: SEARCHSTORAGE.COM

made? Do they know how to take the backup image of the Windows Server running Exchange and bring it up on a remote Linux server running VMware or Microsoft Virtual Server?

According to Lawton, "The ideal situation is to have your most experienced engineers solving the most serious IT issues and to have less-technical staff restore servers to working condition. This is possible with the right disk-imaging software, but, as in all aspects of life, practice makes perfect."

Many department heads will raise valid objections to DR test schedules. Given that end-of-month is a bad time at most SMEs, there is no one-size-fits-all answer to the question of when to test. The IT manager should chat with other department heads to determine the best time to test.

"This assumes that the backup would impact the company's existing servers. That's not always the case," Lawton says. He notes that, with the appropriate software, SMEs can test plans any timeincluding end-of-month or end-of-year periods for finance. "The key is to make sure you don't interrupt those servers," he continues. "Do this by using image-based backup software." In such a test, restore the image to different hardware—perhaps locally or even at a different location by using FTP to move the image from the local site to a remote one where the backup servers are located.

"This way, finance's servers are not interrupted, but you still can do your tests. Plus, it makes the tests more authentic, since if there's an emergency, you likely would not be restoring the exact same hardware," Lawton points out.

#### **Testing Frequency**

Assuming that there are no major changes in infrastructure or staffing, the consensus is that SMEs should test about once a quarter. "If there is a significant change in infrastructure or staffing, test the plan immediately, regardless of the last time it was tested. If there is staff turnover, test more frequently," Lawton advises.

Toigo says an SME can keep a plan current by eliminating technical factors and focusing on logistics. "If you do that, you can do a recovery rehearsal two or three times a year and eliminate a large share of the hassles."

"Part of the issue of testing is removing the FUD (fear, uncertainly, and doubt) about why it's being done and then making the testing as transparent to the users as possible," Lawton says. "Remember, if you interrupt user operations, it won't be an easy process. If you use software that can run all of the backup and recovery tests in the background, your users and customers will never notice—and isn't that the goal?"

One way to make DR testing less painful is to make sure that you are testing accurately. For example, Lawton asks whether you are testing the mission-critical servers that must be restored first or testing every server in the company, including file and print servers. Perhaps those servers don't need to be tested the same way as the Exchange server, he suggests.

"If you have software that monitors specific data or specific servers, perhaps you can adjust your test so that you're not duplicating efforts. Create the right kinds of tests for your environment—one size never fits all," he says.

#### Other Tips

"Build in recovery—don't bolt it on," Toigo says, adding that elimination of things involved in recovering applications or platforms simplifies the process. Data copying should be routine.

"Test restoring systems to different hardware," Lawton advises. He says that restoring to the same system is unlikely. With a serious problem, such as a natural disaster or a major hardware failure (such as a motherboard), Windows will not be restored to the exact same system with identical hardware.

"Also, try restoring to and from virtual machines," Lawton suggests. "Creating a VM and loading your backup image there will likely get you up and running very fast. However, many virtualization vendors don't offer tools to migrate from a virtual environment back to a physical one, so be sure your DR software has that ability."

Toigo is not so sold on VM, calling it "a tower ready to fall over." He prefers wrappers-products that put an SME's infrastructure into a recovery envelope and fail it over as a complete package.

#### **Avoid These Mistakes**

There are several mistakes SMEs commonly make when doing a disaster recovery test, according to Stephen Lawton, senior director of strategic marketing for Acronis (www .acronis.com). Among the pitfalls to watch

- Surprise testing
- Failure to account for resources
- · Deviating from the set test plan
- Allowing bystanders
- Failure to manage progress
- Improper documentation

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# Preparing For An Insider Exit

#### What To Do When IT Employees Leave Your Company

by Holly Dolezalek

On Aug. 15, an employee of the Ohio Police & Fire Pension Fund retired. Before he left, he emailed a database of 13,000 retired Ohio police officers' names, addresses, and Social Security numbers to himself.

He wasn't prosecuted because pension officials didn't think he did it for nefarious purposes. But the case illustrates how casual employees can be about the information they take with them when they leave. Given all the access and control IT employees can have to companies' most sensitive information, no company can afford to be casual about their departures.

Consider the findings of a recent study by Cyber-Ark Software (www.cyber-ark .com), a provider of digital vault software in Newton, Mass. Conducted at Infosecurity 2008, an information security conference in New York, IT administrators responded to questions about what they would do if they were laid off.

The survey's most disturbing finding was that 88% said that if they were laid off, they might take privileged passwords, customer databases, research and development plans, the CEO's passwords, or other potentially devastating information.

So how do smart companies protect themselves from the perils of IT employees who leave? There are obvious security precautions to take in the wake of any employee's departure, such as retrieving laptops or key cards and changing passwords to their accounts. But when it comes to employees with more sophisticated abilities for destruction and access to more systems, an ounce of prevention is worth a pound of catch-up.

#### **Know Who Has What**

When an IT employee leaves, the time to protect the company from possible damage has already come and gone, especially if it's a sudden termination or layoff. That's why smart organizations keep track of who has access to what from day one. That means an inventory of all administrative accounts and all users who have access to those accounts. "When organizations do an inventory of administrative accounts, they often discover that more accounts exist than they knew about," says Adam

degraded over time," Trzeciak says. "As new employees came into the organization and left, organizations tend to become less diligent about keeping track of privilege and access."

Even when companies are diligent about disabling individual accounts, many insider attacks come through group accounts or shared accounts for training or testing or system administration. "Those organizations didn't require a change of password for those accounts because they didn't know the employee had access," Trzeciak says. "If you're asking yourself what they have access to as they leave, it's too late."

#### **Communicate About Access**

Whether for fair motivations or foul, IT breaches often rely on anonymity. By using accounts that are not assigned to any particular person, IT employees can cover their tracks so that even if a theft is discovered, its perpetrator can't be traced. This is especially germane to disgruntled employees who plan to leave but haven't told anyone. But organizations with systems and processes in place to prevent employees from accessing information

person has failed attempts, then you know you need to talk to them and let them know that you're aware of those failed attempts," Bosnian says.

## Make Theft Not Only Difficult, But Unlikely

Email, BlackBerrys, and large-capacity flash drives can make data theft possible even for non-IT employees. Good policies about access will make those thefts impossible, but in case they do happen, encrypting data will make them meaningless.

Don't miss the big picture, though. There's a lot you can do to respond to password or data theft. But one of the best ways to protect your company is to create an environment where even if IT employees can take information with them, they don't want to. People don't always steal data when they leave organizations, and when they do, they don't always want to harm the organization with it.

"Most don't take privileged information for profit," says Bosnian. "With some, it's

#### Checklist For Departing IT Employees

- Have employees return all key cards, flash drives, laptops, PDAs, and other devices.
- Change all passwords used by that employee.
- Remove the employee from your domain registration records and from any third-party vendor lists (ISP, offsite storage, etc.).
- Change keys on wireless networks.
- Get access to any administrative or root passwords the employee has set.
- Disable email and access to remote accounts.

# Even when companies are diligent about disabling individual accounts, many insider attacks come through group or shared accounts for training or testing or administration.

Bosnian, vice president of products, strategy, and sales for Cyber-Ark.

After that, organizations should decide whether those who have access should have access and communicate policies about the use of that access.

That may sound like common sense, but companies often don't do it or stop doing it. Randy Trzeciak is a senior member of the technical staff on the Insider Threat Team for the CERT Program at SEI, a research and development center at Carnegie Mellon University in Pittsburgh, Pa. CERT researches Internet security vulnerabilities, and Trzeciak explains that his team has studied nearly 250 cases of insider attacks. "In many of these cases, account management and tracking by the organization

anonymously can track what happens to data, and they can communicate that fact to employees. "The idea is to let people know that 'We know who you are, we know what you're doing, and we know what you accessed at 1:03 p.m.," Bosnian says. "That way, the temptation to use that access is tempered by the fact that they're not protected by a generic system admin account."

#### **Manage Passwords With Care**

It's a no-brainer to change certain passwords when any employee leaves, and that's certainly true when high-level IT employees leave. But by managing passwords more safely before they leave, companies can keep control over the access they grant even after it's granted. "Systems like ours store passwords to critical accounts and centralize them in a digital vault," Bosnian says. "It requires employees who need access to one of those target systems to ask for that access and get a new password, and that makes it easier to deprovision those folks when they leave the organization." It also makes it easier to manage their access before they know they're leaving, as in the case of a layoff or termination.

Changing passwords can also act as a check on IT employees whether they've given notice or actually left. Once passwords have been changed, target systems can be monitored to see whether the employee has attempted to log on. "If the

an emotional reaction: 'I've given a lot, so I'm taking something along in exchange.'"

Others feel a sense of ownership, in that they wrote the code and feel that they're owed something for its creation. They might also want to take advantage of the head start the information might give them in starting their own business. Strong intellectual property and noncompete agreements can help with this, but so can the cultivation of good will that prevents employees from leaving with a sense that they've been wronged.

"It's not always a scenario where good people turn bad, but sometimes an environment gets created that allows this kind of thing to happen," says Bosnian. "It's a management responsibility not to create that kind of environment."

#### **Best Practices For Preventing Insider Attacks**

In the "Common Sense Guide to Prevention and Detection of Insider Threats," Carnegie Mellon University details 13 practices that companies should implement.

- Institute periodic enterprise-wide risk assessments.
- Institute periodic security awareness training for all employees.
- 3. Enforce separation of duties and least privilege.
- Implement strict password and account management policies and practices.
- Log, monitor, and audit employee online actions.
- Use extra caution with system administrators and privileged users.
- 7. Actively defend against malicious code.
- 8. Use layered defense against remote attacks.
- Monitor and respond to suspicious or disruptive behavior.
- Deactivate computer access following termination.
- 11. Collect and save data for use in investigations.
- 12. Implement secure backup and recovery processes.
- 13. Clearly document insider threat controls.

## Virtualizing Messaging Systems

Continued from Page 22

many instances of that virtual messaging all over your infrastructure—then your storage system also needs to be virtualized so it can move around to support the virtualized messaging system."

Barnes has seen many of Neverfail's customers using virtualization as a means of delivering high availability for their physical messaging servers. They are gradually phasing virtualization into their messaging environment and using it to enhance the overall stability, performance, and disaster preparedness of their entire messaging system.

This is one way that small to mediumsized organizations can introduce virtualization into their infrastructures. Again, Barnes cautions jumping into virtualized environments without careful consideration. "One of the things that people don't necessarily think about, for the smaller business, the value of virtualization can be high but also the risk of virtualization can be high. They don't have the skills or a virtualization expert or resources to upgrade the server. Just because the server can run Exchange, that doesn't mean it can also run other applications as it would need to do in a virtual environment. I think that the skills and costs of virtualization are things that shouldn't be ignored by smaller businesses."

#### It's All IP

With the proliferation of VoIP, virtualization is being eyed as a solution to the strain unified messaging and communication systems are now putting on a traditional data center environment. Gary Audin, president of Delphi, a Washington, D.C., consultancy specializing in IP telephony and converged networks, sees VoIP servers and other communication services as ripe for virtualization.

Along with Barnes and Peglar, Audin points out that not all VoIP software is compatible with virtualization. Fortunately, more messaging and communication systems are abandoning proprietary servers and protocols for commercial and opensource systems such as Windows and Linux and using standardized protocols.

Audin believes that as unified messaging and communications systems shift from hardware to software, more organizations will take advantage of virtualization.

#### **How To**

# Plan For Cooling Capacity Needs

#### Data Centers Don't Have To Lose Their Cool

by Chris A. MacKinnon

ADJUSTING A DATA CENTER'S temperature isn't as easy as changing the temperature on a thermostat. In fact, if you're planning your data center's cooling capacity, there are several things to consider before the "thermostat" is installed. So how can your data center accurately plan its cooling capacity needs from start to finish? Here, we'll take a look at the main issues for your cooling capacity consideration.

#### Before The Planning

There are several items to consider before you start planning. John Menoche, global services manager at Vette (www.vettecorp.com), says it's important to know that data center cooling is no longer a "business-asusual" item. "Increasing IT density is shifting the paradigm away from raised-floor cooling to higher-density methods such as close coupling (that is, heat containment) and liquid cooling," he says. To address these issues, people need to consider deploying technologies they haven't used, he says.

Herb Villa, IT product specialist for Rittal (www.rittal-corp.com) says the data center should be looked at as a complete ecosystem.

"This means the end user must take into account any and all factors that will impact cooling capacity and heat removal, including space size, existing climate control components, ambient temperature and humidity, the operating ranges of equipment to be installed, and the plans for future growth and capacity," he says. However, Villa says there is no set procedure to plan this out. "Each user will have unique criteria with their own specific order of importance."

#### **Getting Started**

Matt Kightlinger, director of solutions marketing for the Liebert Products business of Emerson Network Power (www.liebert.com), says in order to get started with planning, managers need to have a thorough understanding of their data center's power load and heat output.

Kightlinger says the best way to get that complete picture is to conduct a data center assessment. "A comprehensive data center assessment can help SMEs understand not only their current power and cooling issues," he says, "but also what they can expect as they grow and the required steps to deal with that growth. It provides a valuable baseline for a data center that previously relied upon comfort cooling and box fans."

Kightlinger says a thorough data center assessment typically includes modeling using CFD (computational fluid dynamics),

which shows exactly how airflow is occurring in the data center and how changes in the space affect that airflow. A CFD assessment identifies potential hot spots and provides the information necessary to put together an effective cooling plan, from rack alignment to cooling equipment.

Vette's Menoche says one aspect of planning also worth considering is a growth plan (in particular, the projected maximum capacity required). He says, "It's important to determine the types and quantities of equipment that will move into and out of the data

#### **Key Points**

- As part of their cooling capacity planning, data center managers may need to consider deploying technologies they haven't used before.
- Data center managers need to have a thorough understanding of their data center's power load and heat output if they want to have a smooth cooling capacity plan.
- The tools that data center managers will use to execute the perfect plan will make all the difference.

center. Retiring old equipment is often as important for freeing up valuable power and cooling capacity, especially since newer equipment often does more work, using less power in less space." He says it's also important to identify options for increasing cooling capacity. "Do they have roof space, chilled water, or condenser water available? If so, are these items always available?"

#### **The Right Tools**

To execute the perfect plan, data center managers need to invest in the right products, tools, and programs for their data centers. Kightlinger says precision or supplemental cooling, specifically designed for controlling the environment around sensitive IT equipment, is a necessary step for ensuring a reliable IT infrastructure, even in small IT spaces. "Room-based precision cooling systems efficiently focus cooling where it is needed most," Kightlinger says, "while supplemental cooling is placed close to the source of heat (often mounted at the top of the rack or on the ceiling) and provides an effective space-efficient solution."

"There are other things to consider, as well," Kightlinger adds, "including some relatively simple and inexpensive actions. Cable management seems like a small detail, but tangled cables can restrict airflow and trap hot air near the servers. Rack-mounted cable management systems can keep the cables under control and the air flowing freely." He also says that rack features, such as perforated doors, easily removable panels, and the capability to easily add rack-mount-

ed cooling if needed, can make a difference whether a data center has one rack or 100.

Menoche recommends an infrared noncontact thermometer to begin with, followed by a temperature and humidity logging device. He says it is difficult to improve a system that you don't fully understand. Menoche says, "Pay close attention only to the inlet temperatures to the IT gear. Exhaust temperatures are not your main target when you're beginning."

If you are contemplating a new installation or upgrade to an existing site, Rittal's Villa recommends reviewing all best practices in use. He says some of these practices can include the use of blank panels in unused rackmount spaces, vertical air baffles to further separate hot and cold air flow paths, and proper floor tile management and reduced tile holes. In addition, Villa says data center managers might have to consider optimizing cable routing paths to minimize the impact to cold air delivery and warm air return, the possible use of aisle containment systems, and high-density cooling systems.

Both Kightlinger and Menoche agree that one of the most common costs incurred by data centers is a professional assessment. Precision cooling equipment can also impact the bottom line, but Kightlinger says some actions, such as improving cable management, are virtually cost-free. But he is quick to point out that insufficient cooling capacity leads to overheated servers, downtime, and lost data. "Those are the kinds of losses few SMEs can afford," he says.

Kightlinger says there really aren't any pitfalls to planning for acceptable cooling capacity. He says taking a proactive approach allows an IT manager to think in scalable terms. He says many data centers experience hot spots as they grow and add equipment. Kightlinger concludes, "By understanding current and future cooling needs, SMEs can choose scalable solutions that adjust to a growing heat load. This is more efficient and cost-effective than adding cooling capacity with every server."

#### What You'll Need

"If you are installing components in a data room," says Herb Villa, IT product specialist for Rittal (www.rittal-corp.com), "you will most likely be concerned with using existing climate control hardware (CRAC or CRAH units), as well as maximizing installation density in the space. Projected per-enclosure heat loads should also be established to help ensure that sufficient cooling capacity is available. And if planned installations will exceed existing capacity, the user must provide higher-density cooling components."

#### TOP TIPS

According to Matt Kightlinger, director of solutions marketing for the Liebert Products business of Emerson Network Power (www.liebert.com), the three top tips associated with cooling capacity planning include:

 Conduct a data center assessment. The only way to truly understand current and future cooling capacity needs is to undergo a data center assessment that evaluates power requirements and heat load. This includes computational fluid dynamics modeling to gain an understanding of airflow and hot spots in the IT space.

2. Think in terms of scalabil-

ity. The data center heat load isn't static, and cooling solutions shouldn't be, either. Plan for growth and expect to rely more on IT for critical business functions. Make cooling decisions that can grow with your business and your data center. Also consider the variations in heat output depending on the time of day or year.

Choose cooling solutions that scale to meet the varying needs.

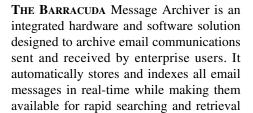
3. Monitoring and management matter. Sometimes even the best planning isn't enough. Unexpected issues can cripple your IT systems. The best way to avoid this when planning your cooling capacity is to choose systems with integrated monitoring and management capabilities. This lets you catch and deal with an unexpected hot spot before it fries a server.

MESSAGING & TELEPHONY

AUGUST 22, 2008

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### SIX QUICK TIPS

# **Detect Security Threats Sooner**

## **Preventing & Rapidly Detecting Security Problems Requires Multiple Approaches**

by Kurt Marko

COMPUTER SECURITY continues to be one of the hottest areas of IT, and for good reason—threats continue to evolve and morph into ever more dangerous, disruptive, and destructive forms of attack. While every organization, regardless of size, is looking for ways to detect and respond to threats more rapidly, perhaps nowhere in IT is Benjamin Franklin's wise aphorism, "An ounce of prevention is worth a pound of cure," more aptly applied than to computer and network security.

The following are some steps IT departments can take to forestall security threats and more rapidly detect those that slip through their defenses.

#### **Use Network Security Hardware**

Every responsible organization uses a network firewall to protect internal networks from Internet-borne attacks, yet traditional firewalls no longer offer adequate protection. Where older firewalls focused on blocking external threats by examining TCP headers and session information, their evolutionary successor, IDSes (intrusion detection systems), looks at a packet's content. IDSes also examine internal traffic to detect attacks emanating from within a company's private network. IDSes are still reactive, says Doug Barbin, director of product management for

Verisign's Managed Security Services (www .verisign.com); however, the need for a more proactive strategy has evolved a new category, IPSes (intrusion prevention systems).

Like their progenitors, IPSes monitor networks and systems for suspicious activity but add the ability to automatically respond to detected threats without manual intervention. Barbin says that IPSes can play an important role in partitioning enterprise networks into various security zones, providing control points where traffic can be inspected and filtered. Nevertheless, IPSes are but one weapon in the network security arsenal, and SMEs may feel overwhelmed by the sheer number of products needed for comprehensive security. Thus, Adam Stein, vice president of marketing at Mu Dynamics (www .mudynamics.com), says many smaller organizations should investigate UTM (unified threat management) appliances that combine multiple security services into a single hardware device.

#### **Build A Secure Network**

Just as basic firewalls are no longer adequate for detecting and preventing today's threats, a simple "moat and castle" network design that segregates a company's entire intranet from the public Internet via gateways is also obsolete. Security experts derisively characterize such networks as "hard

and crunchy on the outside, but soft and chewy on the inside," meaning that once hackers or malicious code gain entrance, they have free reign to probe every system in the enterprise. The preferred approach, says Stein, is to practice defense in depth, in which multiple layers of security are deployed around a network with more critical systems segregated from PC clients, printers, and the like. This strategy enables containment of any threats that do make it through primary defenses.

Barbin also recommends that network managers employ a related concept known in security circles as the principle of least privilege. He says users should be granted as few access privileges as possible and only those needed to do their work. Of course, modern OSes all embody this policy through user and administrator account logins; however, it can also be extended to network, VPN, and application access.

#### **Enhance End-User Education**

Because many security threats target end users—whether phishing attacks looking for confidential information or malware targeting PCs—one of the most direct ways of preventing attacks or discovering new threats slipping through network defenses is by making employees more security conscious.

End users are usually the weakest link in any security strategy, particularly now that social engineering-based attacks, which trick people into revealing sensitive information, are more devious and convincing. Michael Argast, security analyst at Sophos (www.sophos.com), notes, "If users act recklessly, they will be more at risk." Thus, he encourages companies to train employees in proper PC and Internet hygiene, email etiquette, and threat characteristics, especially concerning phishing attacks. While he admits that combating phishing schemes is a tricky proposition, the combination of malware-filtering software and some healthy skepticism from users can reduce them substantially.

#### **Get Outside Help**

The complexities and nuances of IT security have spawned entire new job titles and specialties, yet SMEs often don't have the staff, budget, or time for a dedicated security office. Managed security service providers fill this void. These firms employ security experts to configure and manage hardware, investigate security alerts, and respond to incidents. For IT shops without the expertise to fully understand the subtleties of hardware or software configuration or that can't follow the ever-changing threat landscape, Barbin feels these services can typically deliver a more robust, responsive environment, while possibly even saving money by obviating the need for a dedicated staff.

#### **Best Tip:**

## Deploy An Integrated Endpoint Client Security Suite

PC clients—endpoints in marketing parlance—are perhaps the most common entryway for external threats. Once safely ensconced in a corporate intranet, compromised systems also become a prime means of contaminating other internal systems. Thus, having endpoint security is a necessity, but antivirus or antispyware software is no longer adequate.

Michael Argast, security analyst at Sophos (www.sophos.com), notes that the burgeoning varieties of threats have spawned a concomitant assortment of detection and prevention software; however, trying to integrate various point products into a cohesive security solution is beyond the capabilities of most users. He says that integrated suites provide better end-to-end security, are easier to manage, and help control cost by consolidating multiple software licenses into a single purchase. Enterprise products also provide the ability to centrally monitor clients, trigger alarms in case of a breach, and automatically push out updates. Argast advises IT managers who are still relying on a hodgepodge of endpoint protection tools to rethink their strategy: "If you're not already using a suite, plan a migration."

#### **Easiest To Implement:**

#### Automated Updating Software

The simplest way to detect new security threats is to let someone else do it for you. By using automated software updates, IT effectively taps into the vast resources of its software vendors to detect and patch vulnerabilities. Argast says that one of the most effective ways IT can prevent security problems is by hardening their environments. Given that many threats target OS or application flaws, automated up-dates are the easiest means of fortifying both clients and servers with the latest service packs, versions, and patches.

This isn't a burdensome task for IT given the plethora of automated patch and update services, says Doug Barbin, director of product management for Verisign's Managed Security Services (www.verisign.com). He notes that smaller organizations can get by with Windows Update or the automated update checking common in most applications, while larger enterprises can choose from a host of third-party software management products. Given the obvious value, ease of implementation, and availability of no-cost options, Barbin is amazed that he often still sees unpatched systems.

#### **BONUS TIPS**

■ Investigate security vendors. Not all security products are created equal, so performing some due diligence before making a purchase can prevent issues later on, says Adam Stein, vice president of marketing at Mu Dynamics (www.mudynamics.com). He cautions that despite advertised claims, the depth of protection and performance stability under stress can vary significantly between products. He notes that many vendors use diagnostic and validation

products, so asking to see test results is one quick way to verify their claims. These tests will show how the products handle unexpected events, how they respond under extreme load, and/or how they attack and the vulnerabilities they miss.

■ Consider network access control. While still a maturing technology, NAC can keep compromised systems from bringing security threats inside a protected network by

shunting them onto quarantine networks and alerting IT. Stein notes that NAC does add complexity to both the network design and end-user operating environment and cedes some control over security policy to the NAC vendor. In addition, so-called pre-admission NACs, which validate a system before granting it full network access, can lead to user frustration and complaints should they need to perform a time-critical task and be denied unfettered network access.

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## WHAT'S HAPPENING

# Rethinking The Software PBX

#### 3CX Works To Provide Pure-Play Offering On Windows Platform

by Daniel Sweeney

**3CX**, A SMALL FIRM AIMING for dominance within the enormous PBX marketplace, already appears dominant within its own designated market niche, the Windowsbased IP software PBX. "We're the only player of note," says Nick Galea, the company's CEO.

"They're certainly the biggest," says Alan Weckel, a senior analyst who covers the PBX marketplace for the Dell'Oro Group in Redwood City, Calif. "There aren't many pure-play offerings on the Windows platform, at least not yet. Not that it's all that big a subcategory."

3CX (www.3cx.com), active in the market for just more than a year with offices in the United States, United Kingdom, Germany, and several other countries, sees itself as part of an irresistible trend toward pure software solutions for providing PBX functionality.

Galea says, "The incumbent equipment manufacturers are dinosaurs. . . . Their product offerings lack flexibility and represent poor value. The telecommunications universe is going toward decentralized control and the unbundling of specialized software. The software PBX is a large part of that trend. In the future, no one is going to buy a dedicated box to handle the phone functions."

For now, however, the software PBX is one option among many for the enterprise and a fairly recent option at that.

#### **High Diversity**

PBXes and their close kin, Centrex services from carriers, have existed for decades, first in purely analog form, then in TDM digital, and then, at the beginning of this decade, in a number of swiftly evolving IP variants. Traditionally, they have represented both a major expense for the enterprise and an indispensable tool for conducting business, and the requirement for extremely high reliability and availability has been reflected in the price. Aggressive pricing, which lies at the heart of 3CX's approach, is a fairly new concept in this space.

The space itself is marked by a high degree of diversity. "The PBX is very volatile product," notes Weckel. "But at the same time, there's a degree of conservatism in this market. Traditional hardware PBXes still accounted for 38% of the phone lines in 2007, but increasingly these are hybrids with IP capabilities."

Such TDM-based PBXes, with or without VoIP functionality, are principally the province of Nortel, Mitel, and Lucent—the same companies that have dominated the category for years. But fairly recently, the market has seen the successes of Avaya and Cisco, both with their own very different approaches: Avaya sells hardware IP PBX, while Cisco has added PBX functionality to its IP routers.

"Right now, there are over 40 PBX manufacturers of all sorts active in the market," says Weckel. "There hasn't been a lot of attrition recently. In other words, the com-

panies with the older technology are holding their own—at least for now. There will be a fairly lengthy replacement cycle for the legacy

equipment, seven years being the typical life cycle of these units, so IP PBXes of whatever sort will not be sweeping the market overnight," he says. "But there's no question that the market as a whole is going to a pure software-based approach. 3CX is right about that. The question is what software platform. Will it be open-source Linux or will it be Microsoft?"

Galea obviously believes that it will be Microsoft. 3CX has no plans for offering a Linux version of its software. Galea also believes that 3CX's advantage with respect to the Microsoft-based software PBX will prove decisive.

Currently 3CX is a pure software company and does not offer hardware such as SIP phones. And it plans to stay that way, Galea says, although it does recommend specific hardware platforms.

3CX's business plan also is not based on partnering arrangements and freeware, Galea says, although the company does offer a rudimentary version of its system as a free download. "We are not in the business of throwaway software," Galea says.

#### **De Facto Standard**

"SIP is the de facto standard, and it will remain so," Galea says. "We would anticipate that our customers would migrate to SIP phones. We would further anticipate that SIP clients will eventually become the norm on mobile devices." 3CX's software is compatible with IP softphones. It also eliminates the requirement for a dedicated Windows server, a further measure to reduce hardware components in the overall system. It is fully integrated with Microsoft Exchange 2007.

Galea predicts that the migration from circuit to IP within voice networks will be largely complete by 2013, but he advises customers to continue to

invest in VoIP gateways in the meantime. "With prices as low as \$200 for basic models, they're good investments because they provide continuity with legacy networks," he says.

The 3CX Phone System is a complete phone system that covers call switching, routing, and queuing. The system comes in four versions that all can handle an unlimited number of extensions: a Free edition that can handle up to eight simultaneous calls with fewer features and support options than the commercial versions; a Small Business Edition with support for up to eight simultaneous calls; a Professional Edition that handles up to 16 calls at once; and an Enterprise Edition that handles up to 32. Pricing starts at \$595 for the Small Business Edition.

Galea says the 3CX Phone System For Windows Enterprise Edition is a fully developed product that includes extensive customization features, ensuring it will meet the needs of enterprises large and small for years. All commercial editions include popular system features such as caller ID, conferencing, and hunt and ring groups; a Web-based management console and integrated Web server; an integrated fax server; and integration with leading third-party applications.

#### THREE QUESTIONS

# Managing The Physical Infrastructure

#### Global DataCenter Management Focuses On Boosting Data Center Efficiency

by Corey Russman

GLOBAL DATACENTER MANAGEMENT is a global software development company that provides products designed to help enterprises better manage their data center physical infrastructure and improve their operational efficiency, thereby driving down data center costs

Founded by data center professionals in London in 2003, GDCM (866/929-4326; www.gdcm.com) has more than 100 employees and established its U.S. division this year, with offices in Stamford, Conn.; Dallas; and the San Diego area.

Daniel Tautges, GDCM president, has 20 years of industry experience, including senior management positions at Lucent Technologies, IBM/Micromuse, Network Harmoni, and Rackwise-Visual Network Design.

## ■ What are the biggest IT-related issues facing today's small to midsized enterprise?

Tautges: The cost of providing quality IT services for an organization has more than doubled over the past eight years as unchecked server sprawl and rising energy costs have pushed operating budgets. In fact, the Mass Technology Leadership Council says that total data center energy consumption as a percentage of total U.S. electricity will likely double again in the next four years.

The explosive growth of data centers and the amount of electricity needed to power them is not just an American phenomenon; it's an emerging worldwide crisis. Not only does a typical data center need more electricity each year to power new server and storage gear, but the total number of data centers is also rapidly growing.

In addition to the energy problems resulting from poor planning, the implementation of energy-hungry new technologies, such as blade servers and DNS and email appliances, only compounds the problem. Implementing new technologies such as blade servers takes significantly more power for the same amount of space as the servers they are replacing.

Over the past several years, these advances in server technology have

placed increasing demands on power and cooling. And as the per-kilowatt cost of power has risen, the energy efficiency of servers has become a huge concern.

As the power and cooling requirements continue to rise, IT management is under extreme pressure to implement changes to reduce these operating costs. Runaway energy costs adversely affect IT management's ability to deliver new applications, maintain consistent service levels, and upgrade and implement new technology by stealing the percentage of the budget used to fund these initiatives.

## ■ What should *Processor* readers know about your company's products?

Tautges: The GDCM nlyte software suite provides data center managers with a comprehensive view of their managed assets and provides automated solutions for typical management tasks and the enforcement of standard processes and procedures.

With nlyte, changes in the data center can be modeled before implementation to determine their impact on power, cooling, and space allocation. Nlyte software helps companies intelligently manage their power consumption, shrink their carbon footprint, and optimize their critical data center infrastructure to drive down costs.

Data centers can use nlyte to optimize power, cooling, cabling, and space; streamline operational processes; visualize the data center with high-level view; monitor key indicators, including real-time power and live feed data; model, manage, and plan data center migrations, consolidations, and changes; implement and manage a green data center initiative; and facilitate the implementation of new technologies.

## ■ What makes your company unique?

Tautges: Our founders, Lee Moreton and Robert Neave, both have direct experience in data center management at UBS Investment Bank (Perot Systems Europe). They understand this industry and the problems data center managers face on a daily basis. The nlyte software suite was the result of not being able to find a comprehensive solution developed specifically for data center management.

Since 2003, GDCM has been focused exclusively on building the best data center management solution in the market. It owns all of its intellectual property and has patents pending on its proprietary technology. In five years, GDCM has compiled an impressive list of U.S. customers, including DHL, Merrill Lynch, and Visa. GDCM also has strong partner relationships with IBM and HP and is the preferred data management solution for BMC.



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